



SOLAR FLARE

SOLARPUNK STORIES



Edited by Patricia Bray
& Joshua Palmatier

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&
Joshua Palmatier

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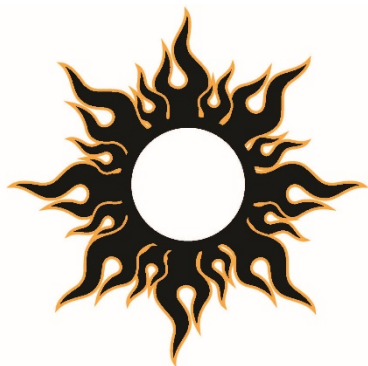
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DUSTBOWL DETECTIVE

by David Keener

DAY ONE

Frank Santora, suited up and sweating in the heat, sits behind his wide, expensive wooden desk, looking up at Ulysses Perez standing in front of him. “Bastards boosted ten boxcars,” Frank says. “Made off with all the goods.”

“When?”

“March 17th,” Frank admits reluctantly.

Ulysses raises an eyebrow. “Bit of a cold trail, ain’t it? That’s almost three months ago.”

Frank bristles at his tone. “You’re not paid to think. Just find who did this and make sure it doesn’t happen again.” It’s clear that a wannabe corp climber like him doesn’t appreciate being chastised by a short, scruffy, wiry Mexican wearing dusty cargo pants and holding a battered cowboy hat in his hands.

“OK. It’ll be a minimum two weeks at my usual rate.”

“I pay for results, Paco.”

Ulysses shrugs. “Up front. No guarantees, on account of you lettin’ the trail go cold.”

“That’s not how I do—”

“Stop wasting my time, Frankie boy,” Ulysses says mildly, settling his hat on his head “I ain’t the one gotta explain things to

Corporate.”

He’s halfway out the door when Frank says, “All right, all right. Deal.” Ulysses turns to look at him. “My secretary can give you the details.”

Ulysses nods, then walks through the half-empty office bay to the reception desk where Frank’s secretary sits. Inari Ruska has a folder ready for him by the time he gets there. She’s early thirties, all pale skin and blond hair from her Finnish ancestry. Ornate letters on the wall behind her spell out: TRANS-PACIFIC STANDARD. Below it, a logo showing the silhouette of a freight train with the sun just above it.

“Didn’t you have an office last time I saw you?”

She grimaces. “The new director does things differently.”

He opens the folder and casually flips through the contents. It’s thorough, which means Inari must have compiled it for Frank.

“The payment’ll hit your account tomorrow.”

Ulysses tips his hat. “Pleasure doing business with you, ma’am.”

He walks out, gets into a battered Jeep parked outside, and drives off. Looking in the rearview mirror, he sees a rusted-out gray pickup truck pull out of a parking space at the same time. Reflexively, he zooms his enhanced vision and snaps the license plate. Probably just a coincidence, but a little paranoia never hurts.

* * *

Ulysses is eating lunch at a BBQ joint called the Thirsty Pig, sitting where he can keep an eye on his camouflage-painted Jeep. Papers and photos are spread across the table. From the evidence, the thieves separated the last ten cars from a hundred-car train, moved them up an abandoned siding, then destroyed some of the rails behind them so the boxcars couldn’t be easily retrieved.

The manifest for the cars is decidedly eclectic: industrial equipment (mining), commercial electronics, zirconium ingots, household appliances (washing machines, dryers, dishwashers), farm equipment, etc. All stuff that can be sold easily on the black market.

Except for the zirconium...that’s odd.

Inari walks in and sits across from him.

“What’s with the ma’am shit?”

There’s an extra plate of BBQ. Ulysses pushes it across the

table.

"Microcams," he says. "Two of 'em. Frankie boy's got his eye on you." He prudently doesn't mention the cleavage shot Frank gets on video every time Inari bends over at her desk.

"Lovely," she says, an expression of disgust on her face.

"Figured it was better for you if he didn't realize we knew each other too well."

"You call him 'Frankie boy' to his face?"

"Yup."

"Ooh, I bet Frank didn't like that. People around the office are scared of him. He...downsized."

"I'm scary," Ulysses says, with the utter confidence of an ex-soldier who's still got his mil-spec cyber-mods. "Frank's more like a toy poodle some spoiled rich lady would carry around in her designer purse."

"You don't look scary."

"I like being underestimated."

"Huh," Inari says, feigning being unimpressed. "Did you solve the crime of the century yet?"

"About that," Ulysses says. "If it's possible, let's keep my involvement quiet."

"All right, but why?"

"It looks like an inside job to me. I'd rather not warn them that I'm coming for them." He steepled his fingers. "Somebody was looking at manifests. Cut off the tail of a train that had what they wanted. What I want to know first is how come TPS Security wasn't onsite for seventy-two hours?"

"The train AI thought it was a mechanical, so it didn't trigger a security alert."

"Frankie hire somebody before me?"

Inari stares at him in surprise. "Yeah. How'd you know?"

"Probably paid the guy more than me. Only he didn't solve it, so Corporate's still riding your boy."

"Right on all counts."

"Classic setup," Ulysses says. "I'll bet he hired a loser for an inflated price, then collected himself a nice kickback. Probably figured management would forget about the whole affair if it dragged on long enough. Only problem, they didn't forget about it 'cause the crime's unique."

"You think Frank did the train heist?"

“Not a chance. Too bold, too flashy for a sneak like Frankie.” He points at the manifest. “How many people can access a manifest like this?”

“Lots of people. Most everyone at the office. Management at the train stations on the scheduled route. Inspectors. Loaders—”

“OK, too many to narrow it down that way, then,” Ulysses says. “I need an expert, somebody who can talk to me about the train AI, the alerts, all that electronic stuff.”

“That’s easy,” Inari replies. “You want to talk to Jasper Conway. He works out of Bluefield. There’s a small station yard there. He handles repairs, software patches, all kinds of stuff. He’s like a Swiss Army knife when it comes to keeping the trains running.”

“Then he’s my next stop.”

“This is nice,” Inari says, looking around the restaurant. “We should try for a dinner sometime.”

“You askin’ me on a date?”

“You’re the detective. Decipher the clues.”

* * *

The Bluefield train yard is bustling. A sleek, modern-looking passenger train stops at the train station north of the yard while Ulysses strides past the warehouses, cranes, repair berths, and outbuildings. There’s a cargo train pulled next to the warehouses, with sweating workers shifting cargo out of the cars in a dance that hasn’t changed since the 1800s.

Some lone boxcars, a few two- or three-car sets, and a small yard-based mini-locomotive perch on sidings waiting for action. Some of the boxcars look like they’re more than a hundred years old. After all, a thirty-ton steel box is pretty much always going to be a steel box; the only thing that changes is the paint job.

Ulysses comes to an ugly, metal, pre-fab building labeled WORKSHOP. Looks up and notices a couple of discreet cameras. Knocks on the door.

A man opens it. He’s got thinning hair, a potbelly, and was probably muscular ten years ago. Still, he’s looking not too shabby in designer jeans, a very nice designer shirt, and what looks like a Rolex but is probably a knock-off.

“I’m Ulysses Perez. I’m looking into—”

“The train heist.”

Ulysses frowns. "Everybody know about that?"

The man shrugs. "Biggest news around the company."

"And me?"

"Well, you know. Nothing's faster than the rumor mill." He chuckles. "I'm Jasper Conway. I figured you'd be coming my way with questions sooner or later."

"Convenient," Ulysses says. "Saves time, you knowin' why I'm here and all."

"You want to know why a Security Alert wasn't triggered."

"You betcha."

"I thought it was weird, too," Jasper says. "Took me a good while to figure it out. It's easier to show you, though, so let's go for a walk."

Ulysses follows Jasper down some steps, then they crunch across gravel to a three-car combo on a siding. Jasper climbs up onto the train coupling.

"This is the train coupling," Jasper says. "And this is the comms cable." He reaches underneath the coupling, lifting the cable so Ulysses can get a closer look. There's a cable the width of Jasper's thumb extending from each train; they plug into each other in the middle, with locking clips to ensure the connection doesn't come undone. "Say somebody gets on the train without the AI seeing them. They manually undo the cable connection while the train's in motion." Jasper twists the connector apart. "The AI will send a Security Alert because it thinks somebody is onboard and interfering with the train. Likewise, if they manually uncouple the cars while this cable is still connected...a Security Alert."

"But that didn't happen."

"Nope. Because the robbers cut the cable instead, and then undid the coupling."

"Why's that matter?"

"AI didn't see anybody, but it knows the cable got broken somehow. So, it thinks it's had a mechanical. It sends a Mechanical Fault Alert instead, which needs to be reviewed by people before being escalated. They, um, didn't check expeditiously."

"Not a very smart AI," Ulysses says.

Jasper shrugs. "You get the level of AI you pay for. You usually don't need much to keep a train going one way on a steel track."

"You think the robbers planned that?"

"I don't know," Jasper says. "Brilliant planning...if it was planned. But it coulda just been dumb luck."

"Like if they'd planned to use an axe anyway."

"Yeah."

"I'm kinda interested in how they got on a moving train without the AI seein' them."

"You and me both," Jasper replies.

They walk back across the gravel. As they're climbing the steps, Ulysses turns back to look at the boxcars in the yard.

"The information I have says they moved the boxcars off the main line onto an unused branch," Ulysses says. "I did the math, that's thirty tons per boxcar, plus up to a hundred tons of cargo each. How the hell did they move 1300 tons?"

Jasper laughed. "Shit, they probably could have done that with a damn Clydesdale." At Ulysses' puzzled look, Jasper added, "Look, it's the coefficient of rolling friction. There's hardly any resistance with steel wheels on steel rails. On level ground, a pickup truck could pull a million-ton train."

* * *

Ulysses is walking through the Bluefield Station parking lot when he spots the gray pickup truck that was following him earlier. Since he's traveled three hours to get here today, it's a sure bet that somebody is following him. He kneels down next to the parked truck, pulls out a knife, then reconsiders. He lets the air out of two of the tires instead.

He doesn't like being followed.

DAY TWO

Ten boxcars huddle on rusty tracks surrounded by dusty desolation, doors wide open to the wind and swirling grit. Despite the wind, Ulysses can still see the remnants of tire tracks, boot prints, and drag marks where what must have been a sizable group of people unloaded the cars. Everything is tinged yellow thanks to his goggles. The cargo is all gone, except for junk scattered around that nobody wanted.

The zirconium ingots are gone, too. They must have had value to somebody, or they'd still be here.

He walks around the cars. The boxcars have sliding doors on only one side, with unobtrusive cameras above each door. All the

cameras have been smashed. Interestingly, all ten cars have a red X spray-painted next to the open doors. Examining the foremost car, Ulysses is unsurprised to see that the comms cable has been severed, probably by a vibroblade given the smoothness of the cut. The train uncoupling was accomplished by a small explosives charge.

Very professionally done, too, Ulysses notes. Just enough charge to do the job.

Circling around to the last car, he checks out the rear camera. It's a portable; battery-powered, magnetically attached wherever they're needed. The camera itself is largely melted. Ulysses zooms in and sees several laser lines scored in the steel around the camera.

Back at his Jeep, Ulysses lifts the rear hatch, reaches in, and opens a metal box, revealing an "eyeball," a light, spherical drone about six inches in diameter. His sensorium, the cyber control system implanted in his cranium by the good old US Army, automatically links up with the drone. At his mental command, the eyeball floats out on a whisper-silent air jet and flies down the railroad tracks.

Ulysses sees the drone's POV in a window in the lower right quadrant of his field of view. Around the perimeter of the window, parameters are visible such as speed, altitude, and more. He sends the drone past a gap where a section of track has been blown up. Presumably, to make it harder to retrieve the boxcars and, perhaps, to give the perpetrators more time to move the cargo.

Destroying the track seems like overkill to Ulysses. Especially given how organized the unloading seems to have been.

Thirty minutes later, the drone has reached the main line and turned east, following the train's course in reverse. Ulysses is trailing behind in his Jeep, making sure he stays within the drone's four-klick comms range. Over the next hour, the terrain gets steadily more rugged, until the railroad tracks are snaking through a jumbled, rocky wasteland.

Ulysses is forced to stop the Jeep while the drone forges on. By now, though, he's pretty sure he knows how an intruder got on the train. Knowing what to look for is half the battle, because he finds the evidence without too much trouble.

Ulysses is on the highway, driving back to Paloma. It's desert as far as he can see, but he knows this all used to be fine Kansas farmland until the water dried up.

"Dmitri," Ulysses says over a satellite phone connection. There are no operational cell towers in the desert anymore. "I got a salvage deal for you."

"Oh? What are we talking about?"

"Steel."

"Not war salvage, I hope," Dmitri says with a rumbling chuckle. "I ain't dealing with no unexploded munitions."

"Nope. Good steel, and nobody rushing to collect it."

"How big a job?"

"Three hundred tons."

"Whoa," Dmitri says. "You don't think small, do you? I'm interested. Usual deal?"

"Yeah. So, it's ten boxcars, sitting in the desert, about a mile from an old highway. Good hardpack dirt for that last mile, so trucks can get there fine."

"Less it rains."

"Yeah, right," Ulysses says, chuckling. "Keep dreaming. I'll send the coords."

"Oohrah!"

* * *

Inari and Ulysses are lying in bed on their backs, side by side, breathing hard, with nothing but a thin sheet over them. They're in Inari's tiny RV which, despite being neatly maintained, has to be at least fifty years old.

Inari turns her head to look at him. "Why haven't we done this before?"

"Never thought you'd be interested in a scrub like me."

"But you never tried. I couldn't understand..."

After a long pause, Ulysses says, "I was US Army, drafted at the beginning of the Civil War. Had a wife, two kids. They all died from one of the war plagues while I was away."

"I'm sorry."

"I was pretty...dead...for a long time." Ulysses sighs. "Then, after the war...after the US broke up, it turned out I wasn't even a citizen of the country I'd been fighting for on account of where I was born. And where I was born didn't want me on account of me

fighting for the wrong side.” One day Ulysses had been a soldier, the next he’d been a scrub, a person of no nation. An illegal alien with no rights in any of the five nations into which the former United States had split.

“Well,” Inari says, smiling, “you ain’t dead no more.”

“Guess not.”

“We need dessert,” Inari says suddenly. “I have ice cream, if you like vanilla.”

Ulysses eyes her pale white complexion, so much lighter than his own sun-burnished skin. “I like vanilla just fine.”

* * *

“You’re telling me,” Inari says, gesturing with her spoon, “that someone used a zipline to get onto the roof of the train?”

Ulysses is sitting across from her at a fold-down table sharing ice cream—two spoons, one bowl. “Yeah,” he answered. “The tracks were winding through rocky terrain, so the train was going slow. They strung a cable across this narrow canyon. Then somebody dropped onto the roof of one of the boxcars when the train went by.”

She shakes her head. “Sounds dangerous.”

Ulysses shrugs. “Only if you miss.”

“OK, so that makes sense, even if it is crazy. Why the X’s by each door?”

“I figure the thieves only cared about one boxcar, but they didn’t want to be obvious. So, they knocked off ten of them.”

“Like Goldilocks.”

“Come again?”

“Not too few, not too many, just right,” Inari responds.

“Nobody gets too worked up over it because it’s still just a small heist.”

“I’ll buy that,” Ulysses says. “But then they got to get rid of all that cargo. So, they bring in some...scavengers...to offload the rest of the cargo and make it disappear. They put an X on the car they don’t want nobody messing with.”

“OK, but they can’t leave just one X behind when they’re done, or it’d be obvious.”

“Right.”

“You’re really good at this,” she says. “You know, figuring things out.”

"I dunno. Sometimes, I look at things, I just...see how they fit together."

"It's a gift."

Ulysses chuckles. "Yeah, well, sure took me a while to figure out how to make a living at it."

"At least you have something to depend on." Inari rubs her forehead tiredly. "I lose this job, I'm in serious trouble."

Ulysses frowns. "That a possibility?"

"Well, the office staff that's left is mostly low-paid scrubs, or good-looking females, or both. And Frank's after...look...OK, he's a slimeball."

Ulysses finds himself unsurprised at her characterization of Frank, since it jibes closely with his own low opinion of the executive. What does surprise him a little is the slow burn he feels knowing that Frank could mess up Inari's life.

Maybe Inari's right. Maybe he's not dead the way he used to be.

Ulysses asks, "You trust me?"

"Yes."

"I need a backdoor to the TPS network."

Inari shoots him a look. "OK."

DAY THREE

It's afternoon, but it doesn't look like it. A cold front came through overnight, bringing a Kansas dust storm with it. Ulysses is driving his Jeep slowly through the murk, high beams stabbing almost uselessly at the whirling grit. He's thinking that GPS navigation is a wonderful thing, when a brief lull in the wind lets him see the "WELCOME TO MOQUIN" sign as he passes it.

This will be his third stop of the day. He's hitting pawn shops and salvage places, looking for a lead on any of the scavengers who helped dispose of the cargo.

The dust has abated somewhat by the time he reaches the town center, mostly because the buildings are blocking some of the wind. He pulls into a parking space on the main thoroughfare about a block from his destination.

He calls Topaz, a hacker he's used for about eight years. He's never met her in person and has no idea what she looks like.

"Wait, please," she says in her smooth voice. After a pause, she adds, "All right, security protocols are in place. How can I help

you?”

“I have a backdoor to the Trans-Pacific Standard railroad network through a satellite office.”

“Oooh,” she responds. “You’ve been a very bad boy.”

Movement draws Ulysses’ eyes to his rearview mirror where he sees a pickup pulling into a space about fifty meters away, almost obscured by the dust. He can’t tell for sure, but thinks it’s the gray pickup truck again.

Still looking in the mirror, Ulysses says, “There’s a couple things I want you to look for when you do the dive. Plus, I’d like a profile on Frank Santora and Jasper Conway.”

“This is a bit larger-scale than your usual. I’m intrigued.”

After closing the deal with Topaz, Ulysses dons his goggles and hat, then grabs a mask to cover his nose and mouth. It’s all standard gear for these parts, seeing as dust storms are way more frequent than rainstorms. He gets out and walks down the cracked sidewalk. He turns a corner, then quickly darts ahead and ducks into a narrow alley.

If it really was the gray truck, he expects he’ll be followed. A moment later, a slim figure in a dark hoodie walks past. Ulysses yanks his follower into the alley.

Whoever it is screams in surprise and sprawls to the pavement.

The figure bounces up and tries to hit Ulysses with a second-rate taser.

But Ulysses is already in combat mode, his cyber enhancements kicking in so it’s like his attacker is moving in slow-motion. He knocks the taser out of his opponent’s hand, then slams the person into a wall.

His attacker falls hard, the hood comes down, and Ulysses realizes he’s been followed by a girl. Maybe eighteen or nineteen years old, long black hair pulled back in a ponytail. Even with her goggles, he can see that somebody’s given her a black eye as a memento.

Ulysses asks, “Who the hell are you?”

She pulls herself into a sitting position and looks up at him. “Winona Sky,” she says in a thick southern accent, “but everybody just calls me Sky.”

“You always follow people around?”

“You took my job,” she says defiantly.

“Frank hired you to waste time and fail. Congrats, you succeeded.”

“I didn’t fail.” She glares at him. “He pulled me off after three days.”

“If you’re so good,” Ulysses says, “tell me something I don’t know about the case.”

“They were after the zirconium. The rest was just a cover.”

“You know? Or you think?”

She shrugs. “It’s my theory.”

“Mine, too.”

Sky stands up, brushes some grit off her jeans. “Some of the stuff that was left behind, it wasn’t on the manifest.”

“Interesting,” Ulysses says. “Not relevant to this case, but it might be related to something else I’m workin’.”

“Honestly, I didn’t see how it fit in either,” Sky admitted. “All right. You’re trying all the places that might carry stolen stuff. Bernie’s is a dry gulch...he don’t know nothin’.”

“Really?”

“Saber’s Supply Company, that’s who you want.”

“That who gave you the shiner?”

“Yeah,” she says. “Big guy with tattoos all over his neck.”

“All right. If that pans out, I’ll drop a century on you and let you claim some street cred for the case.” She nods in response.

“Now, do I got to threaten you to make you stop following me?”

“No,” she says sullenly.

“Taser’s a piece of shit,” Ulysses says. “You should stop by Krash & Burn, get yourself some war surplus. Tell Thrasher that Ulysses Perez sent you.”

* * *

Saber Supply Company occupies the shell of an abandoned big-box department store. Inside, Ulysses discovers a dizzyingly eclectic array of new and used goods: appliances, tools, toys, crafts, weaponry, and much more. It takes him all of two minutes to find stolen items from the train heist for sale.

Interestingly, security is deliberately obvious. Guards are posted at the exit, checking packages as customers leave, and cameras are mounted everywhere, presumably to discourage shoplifters.

Ulysses finds this ironic and wonders how much of the

merchandise has questionable origins.

At the back of the store, Ulysses spots a stairway that leads to some offices, with windows that look out over the store's aisles. He climbs the steps and walks into a rather spartan waiting room. A perky, well-dressed woman sits behind a reception desk that looks like salvage from a defunct law firm.

Approaching the desk, Ulysses says, "I'd like to talk to Mr. Saber."

"I'm sorry, sir," the receptionist says, "but he's busy right now."

"That's too bad," Ulysses responds. "See, you have an awful lot of stuff on sale that was stolen from a Trans-Pacific Standard train. So, he can talk to me...now...or TPS Security can swat him like a fly."

The receptionist suddenly looks flustered. "I'll...I'll...go tell him."

* * *

The receptionist ushers Ulysses into her employer's office. Joshua Saber is sitting behind a wooden desk, an older man who's mostly bald except for a narrow fringe of gray hair. Two other men are standing on either side of the desk waiting for him. They're both big and bulky, though the one on his left has some sort of spiky pattern tattooed around his neck.

Ulysses dismisses them as typical thugs. His US Army threat recognition module helpfully highlights the guns both of them are carrying in shoulder holsters underneath their suit jackets and notes a very low likelihood that either of them has combat mods.

Both guards come forward as Ulysses enters. The one with the tattoos, who Ulysses privately designates as Thug One, quickly and efficiently frisks him as the receptionist exits.

"He's clean."

Saber says, "I'm surprised you don't carry a gun."

Ulysses shrugs. "I don't need a gun." He gestures with his thumb toward Thug One. "He's got a gun."

He punches Thug One in the throat, then plucks the man's gun from his holster as he's falling. Thug Two has barely had time to start reacting when Ulysses pivots and slams an elbow into his head.

He casually ejects the clip, clears the gun, breaks it down into

its components, and drops them on the floor.

Thug Two is on the floor, still dazed but starting to move a little. Ulysses takes his gun and breaks it down, too.

"I don't care about you," Ulysses says, giving Saber a level look.. "I don't care about the stolen stuff from the train. Insurance has already paid off on all that so Trans-Pacific Standard isn't out anything. I want whoever planned this, and I already know it isn't you. Give me what I want, we're done.

"Otherwise, I tell TPS you're screwing with them and, well, Bad Things Happen."

As if in counterpart to what Ulysses is saying, both thugs are on the floor groaning.

"You're very persuasive," Saber says.

"I do my best."

"The guy called himself Mr. Purple. He said he knew someone who was boosting the tail of a train and they were inviting some folks to help take the cargo away. So, there was a bunch of us."

"I don't want them, either."

"The planners, they had a biker gang as security, to make sure no scuffles broke out. We all had the manifest up front, so most of the cargo was already divvied up by the time we started unloading."

"But one of the boxcars was reserved?"

"Yeah," Saber says, "the second from the end. Some kind of metal, but nothing that looked all that valuable."

The second car from the end was the one with the zirconium. So, the whole heist is about a boxcar full of metal ingots. Not a surprise, but it's nice to have it confirmed.

"Mr. Purple meet you here?"

"Yeah," Saber replies. "The first time, anyway."

"I want the video."

* * *

Ulysses is driving down Route 44, through desolation that used to be prime farmland.

"The package I sent you has all the details about Santora and Conway," Topaz says. "I was able to confirm what you suspected."

"Excellent! I love it when things start coming together."

"I'll let you know when I manage to ID the guy on the video. If I can, I'll put a trace on him."

DAY FOUR

Ulysses is eating breakfast with Inari at the fold-out table in her RV when Inari's ancient, pre-war cellphone buzzes.

She answers, listens for a moment, then holds the phone out to Ulysses. "It's for you," she says.

He takes the phone from her. "Yeah?"

"It's about time you got back in the game," Topaz says. "I was getting tired of you moping around all the time."

"Thanks, I think," Ulysses says, smiling, knowing Topaz is just showing off.

"You trust her?"

"Yes," he says, putting the call on speaker.

"Your guy's name is Matthew Rucker. He's an environmental engineer. Looks like his PhD got interrupted by the war."

"OK," Ulysses says. "That's...different."

"He lives in or around South Riding, up in the foothills. Leastwise, he's in that area buying stuff at stores at least every week. I just sent you a list of places where he's made purchases."

Inari says, "Looks like somebody's going to South Riding."

* * *

Ulysses watches from his Jeep as Matthew Rucker, a fit-looking man in a black t-shirt with dark hair and a trim beard, pushes a cart out of South Riding's only market. In an odd form of double vision, he's also watching a drone view of his quarry from three hundred meters in the sky. As Rucker drives away in a beat-up Land Rover, he sends the eyeball after Rucker's vehicle, then follows at a distance.

Rucker travels about an hour into the foothills on winding roads. Eventually, the drone view shows his quarry pulling off onto a dirt road heading north. About two kilometers down the road, Rucker parks in front of a small complex of buildings. Some of them look like dormitory-style residences, others look like work buildings. Ulysses is surprised by the number of live trees around.

The complex definitely has some sort of water supply.

Ulysses turns onto the same dirt road, goes about half-way up it, then drives off-road and hides his Jeep in a deep hollow. Getting out, he sets off hiking so he can swing around and approach the complex from a different direction. Maybe it's his military

background, but he's never been a fan of frontal assaults.

While he's walking through the rough terrain, he directs the drone in a wide circle so he can keep an eye on the complex and his backtrail. On its first orbit, the drone shows him an odd white cone to the west of the little community. Conveniently, it's approximately where he's heading anyway.

Rounding a rocky cliff, Ulysses discovers that the white cone is made of ice. It's about fifteen meters high and fifty meters in diameter, positioned next to a wide gully about a kilometer from the complex. It's an ice stupa—he saw them in a documentary once—created by collecting water runoff and jetting it up into the air in winter. It freezes into a large cone, which releases water through melting over an extended time period.

Well, this certainly explains all the trees, both the ones he spotted earlier around the buildings and the lightly forested slope beyond the ice stupa that extends down to the settlement.

Somebody's doing home-grown environmental projects.

Heading downhill through the trees, Ulysses grimaces in annoyance as the drone view shows him that a small group of armed men have found his Jeep. They must have a hidden camera somewhere by the road, which is better security than he expected, but less than what they probably need.

Still, knowing he's around and finding him are two different things.

Staying in hiding as much as possible, Ulysses makes his way down to the complex, where he observes a bunch of people trickling into one building. Picking his moment, he sidles up behind a small group and follows them into the building, which turns out to be a cafeteria that looks like it can hold about fifty people. It's mostly adults, though there are a few children around, too.

He casually gets in line.

"So, what's for lunch today?" Ulysses asks the lady in front of him.

The lady looks at him with a puzzled expression, perhaps wondering why she can't place who he is. "Oh, today's roast beef sandwiches and potato salad. We got a house salad, too, if you want."

Ulysses collects his lunch, fully aware that more and more people are noticing him and whispering to each other. There's no place to pay, so he takes his tray to a table where nobody will be

behind him. That leaves him facing the entire room.

He takes a bite of his roast beef sandwich. A man in blue overalls approaches.

"Mister," the man says, "can I ask, who are you?"

"My name is Ulysses Perez," he says loudly. "And I'm an investigator for Trans-Pacific Standard Railroad."

Silence falls like a wet blanket. Ulysses takes another bite of his sandwich and chews slowly, knowing he has everybody's attention.

"This is a damn good roast beef sandwich." He takes a sip of water. "Good water, too. Nice and cold." He looks around at everybody watching him. "So, ah, would anybody like to explain why you all felt the need to steal fifty-two tons of zirconium ingots from a TPS train?" He takes another bite of his sandwich. "You all can talk to me...or you can watch TPS shut down your operation faster than you can say 'drought.'"

Ulysses continues eating. It really is a good lunch.

Then a group of armed men burst into the cafeteria. One of them is Rucker, who points in his direction. "That's him."

Rucker is wearing a black t-shirt that shows off his muscles, with a slogan on the front: THE MOUNTAINS ARE CALLING.

Ulysses is pretty sure he knows who traversed the zipline to get on the train.

The men surround him. One of them points a gun at him.

"You need to come with us," Rucker says.

"First of all, I'm eating lunch. Second, Mr. Matthew Rucker, you missed the part where I said I work for Trans-Pacific Standard."

"Shit."

A woman walks up. Brown hair, early forties, she moves past the armed men like she's in charge. "It's all right, Matt," she says. "Joe, put that gun away."

She sits across from Ulysses. Following her lead, Rucker sits beside her.

"Welcome to Vonda," she says, "formerly known as Desert Research Site One. I'm Georgie Holland."

"Pleased to meet you," Ulysses says. "You want to tell me what you did with all that zirconium?"

Georgie brushes a strand of hair away from her face. "Do you know what a MOF is?"

"Not a clue."

Georgie smiles faintly. "It stands for Metal-Organic Framework. Basically, it means you create a complex lattice that's electrically charged and has the right shape to allow water molecules to be attracted and absorbed into the lattice."

"Okayyyyyyy."

She sighs. "A good MOF can absorb water from the air. Even in desert conditions."

"And that's what you needed the zirconium for?"

"Yes."

"So, you make this...MOF stuff...here?"

"We can make it in small quantities, which is good for experimentation." She shrugs. "We outsource the creation for larger batches. But we have to supply the zirconium."

"What about the ice stupa?"

"Ah, you recognized that," she says. "Another experiment. Useful, but the ice doesn't last past mid-summer."

"Where the hell did you mad scientist folks come from?"

"We were doing field research when the war started. After the dust settled, we were scrubs with no university affiliations anymore."

"I know how that works," Ulysses says. "I'm a scrub, too."

Rucker frowns and squints at him. "But you work for TPS."

"I'm a contractor. They hire me to do investigations they can't handle."

"What now?" Georgie asks.

"It depends."

"So, he's gonna blackmail us," Rucker says, slamming his fist on the table. "We'll be paying off this *pendejo* forever."

Both Ulysses and Georgie give him a look like he's a puppy that just committed an unfortunate accident on the kitchen floor.

Pointedly ignoring Rucker, Ulysses says, "Are you planning to rob any more trains?"

"No," Georgie answers.

"My instructions were...find out who robbed the train. And make sure it doesn't happen again. Seems to me, I've succeeded."

"You're going to let us go," Georgie says, "but you want something, too. Not blackmail, though."

Ulysses smiles. It's a pleasure dealing with someone smart. "I think you're lucky I found you."

"Why?"

“How many people you got here? And how big can you get and sustain the community here?”

“Forty-three people right now,” she answers. “Maybe one twenty if we grow it carefully.”

“You have a self-sustaining community with its own independent water supply. Do you know how many groups would be willing to kill all of you to take what you have right now?”

“I didn’t think...”

Rucker bristles. “Hey, we’ve got security.” He makes a vague gesture that takes in his ad hoc security staff.

“I’m ex-military,” Ulysses says mildly. “But I’m still wired.”

“Oh,” Rucker says nervously. Ulysses is mildly impressed that Rucker understands the threat level of a trained and wired ex-soldier, even if his men might not.

“So, what if a group of ex-soldiers decides to take you over? Or a mob of desperate refugees with weapons and nothing left to lose?”

“You’ve made your point,” Georgie says. “We’re more vulnerable than we realized.”

Ulysses nods. “Here’s what’s going to happen. I’m going to tell TPS the situation has been resolved. Insurance covered the loss, so they’re not really out much. And you’re going to have two new community members. Myself as your new Security Chief, and my... girlfriend.” The phrase feels strange rolling off his tongue. “I think we can fix your security issues and maybe some other problems as well, so we’ll both earn our keep.”

“Do I have a choice?” Georgie asks, then glances at Rucker as if seeking another viewpoint.

Rucker rubs his chin thoughtfully. “Take the deal, Georgie.” He sighs. “He’s kind of a pirate, but I think we’re better off with him on our side.”

Georgie chuckles. “Deal.” She and Ulysses shake hands.

“I know we have more details to work out,” Ulysses says. “But I’ve got plans for tonight and I need to get back.”

“Uh,” Rucker mumbles, “that might be a problem. Joe slashed your tires before I could stop him.”

DAY FOUR – THE OTHER CASE

Inari cracks open the door of her RV a moment after she hears the crunch of gravel under the wheels of Ulysses’ vehicle. He grins

at her surprised expression as he climbs out of Rucker's Land Rover. He reaches back in to pick up a few things from the passenger seat, then greets her at the door carrying flowers, a rectangular package wrapped in brown paper (complete with a pink bow on it), and a big bag containing a takeout dinner.

By this time, her eyebrows have climbed almost to her hairline and she's smiling. "I take it you cracked the case, you're hungry, and you're hoping to get laid?"

"Something like that."

Inari lifts the dinner bag out of his hands, steps back, and closes the door in his face.

Ulysses counts off five seconds and Inari opens the door, chuckling merrily. "I'm just playing hard to get. Is it working?"

"Meh, not so much."

"Phooie, yet another thing my mama got wrong. Get in here." Eyeing the Land Rover, she adds, "There a reason you traded in your Jeep?"

"Long story. I'll tell you over dinner."

* * *

Later, sitting at the fold-out table with the remains of dinner between them and the flowers in a vase to one side, Inari says, "So, that's what they needed all the zirconium for." She shakes her head. "I'm impressed. You solved this thing in...what?...four days."

"Well, we got a lot more to talk about."

Ulysses reaches into his pocket and pulls out a couple folded sheets of paper. He unfolds them and hands them to Inari.

Puzzled, she takes the pages from him. "What's this?"

"Turns out you're an S3, only nobody at TPS ever told you that it means you have signing authority up to five kay. So, four days ago, you hired me to look into...improprieties...at your office."

"OK," she says, rubbing her forehead. "So, I sign this and back-date it. I guess this is one copy for me and one for you?"

"Yup."

"Does this mean Frank's gonna get the heave-ho?"

"Frank pocketed half the cash that was supposed to go to Winona Sky. He's also still collecting money for half the people he let go. Even worse, he has a smuggling thing going on with Jasper Conway. They're selling unused cargo space to locals and pocketing the profits."

“That’s why Frank didn’t want anybody looking too hard into the train heist. He didn’t want his smuggling operation exposed.”

“Right.”

Ulysses pushes the wrapped package across the table and watches as Inari unwraps it. The package contains two dog-eared trade paperback books, *Business Plans for Dummies* and *The ABCs of Business Proposals*. Paperback books are something of a rarity in their neck of the desert.

“I don’t understand,” Inari says, setting the books on the table.

“How do you feel about being the boss, instead of working for somebody?”

“I like the idea, but—”

“Topaz suggested that you should put together a proposal for TPS to outsource their division to your new company. Said that from what she saw, you were basically running the office anyway.”

“And after all the things Frank’s been doing...I’d have TPS management’s attention. Maybe I could hire back some of the people Frank laid off. I’d have to close the current office, though. It’s too big and expensive.”

Ulysses can see she’s starting to get excited about the idea.

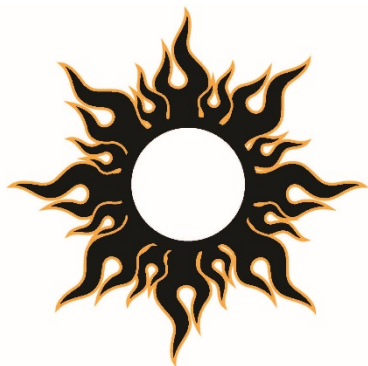
“How about relocating the office to Vonda?”

Inari cocks her head and shoots him a penetrating look. After a moment, she says, “Is this... ‘sometimes I just see how things fit together?’”

Ulysses shrugs. “Water and food included. And having the regional division headquarters there would help alleviate their security problems. Nobody in their right mind wants to mess with TPS.”

Inari chuckles. “You got any other plans I should know about?”

“Well, yes,” Ulysses says, “but not until after dessert.”



THE RACE ON DRY MISSISSIPPI

by Anthony W. Eichenlaub

It was overcast the first day of the Dry Mississippi Solar Race. That should have been the first sign of trouble.

Pike Halverson was too nervous to notice. He rechecked the connections along the floor of his boat, *The Flying Muskie*. Connecting electronics was the one thing he knew he could do better than anyone else in the race. Pike was a panelman—a solar installer—and everyone else was an engineer.

“Interesting design,” said a thin woman in a white tank top and cargo pants. Her short black hair stuck out at odd angles from under a pair of blue goggles. “Who’s your sponsor?”

Interesting. Pike didn’t miss the low-key insult, even if he was a little dazzled by the sparkle of amusement in her bright eyes. “Traditionally, boats never used to have sponsors in the Dry Mississippi—” He peered at her name tag. “—Forever?”

“Forever Pha.” She stuck out a hand and he grudgingly complied. It was like shaking a feather; he was afraid his big, rough hand would crush it. “You’re Pike, right?”

“Yep.”

She took a step back and eyed him, then gave his boat the same treatment. “Is this your first race, Pike?”

“Is this yours?”

"I'm piloting Hansen Photovoltaic's ship."

He pulled the main line and extended the sail. "What happened to the legendary Talia Chen?"

Forever's gaze went distant. "She couldn't make it."

"Interesting."

The woman watched Pike work for several minutes while he finished the prep of his craft, then returned to her own ship, *The Hansen*.

Hansen Photovoltaic's massive, wheeled ship had run the race every year for the last decade and won more often than it lost. Pike knew from a thousand installs that Hansen's panels were the most efficient in the business by a longshot, but they were also the heaviest. In order to handle those lumbering octagons, Forever's ship *had* to be huge. Its frame was a light-but-strong polymer reinforced in places with hollow fiber tubes.

The Flying Muskie was an ultralight made mostly of birch bark and pine sap.

The race ran from the rocky barrens at the former mouth of the Mississippi down through the silt flats of the riverbed and all the way through the first waters of the river until it reached the southern end of the Twin Cities where the river widened into Spring Lake. Pike's ship could handle all three terrain types.

Probably.

The Hansen was the first to move. Its mighty wheels creaked as its panels absorbed power from the hazy sky. It mounted that first boulder like an infant taking its first steps. Unsteady at first, then confident, then smug.

Forever Pha waved at Pike as she rumbled ahead.

The Oval, an ultralight with a smooth, rounded bottom, pulled slowly forward next. Its whirring fans thrust the craft forward, scraping its runners against the rocky lakebed. Then another ship rolled past. Then another. There were twenty ships total, and nearly half moved only a few hours into the cloudy morning.

Still, he waited, even though his simple readout indicated that he had the power to move. Early in the morning, the oaks and pines along the river cast it into shadows. Here, his solar sails had full access to the whole sky, cloudy as it was. If he left too early, he would lose a chance to fully charge his capacitors.

Finally, *The Flying Muskie*'s power level indicator beeped. As a heavy wheeled ship called the *Brilliant Sky* trundled past, Pike

threw a lever and engaged his fans.

The scrubby vegetation under *The Flying Muskie* bent under an unnatural wind. Its weight lifted from the rocks until its birch runners barely touched the jagged stones. Pike eased the levers forward and the fans tilted. *The Flying Muskie* glided forward, passing the Lake Itasca marker at the headwaters of the Mississippi: “Here 1475 FT above the ocean the mighty Mississippi begins to flow on its winding way 2552 miles to the Gulf of Mexico.” The race ran only a fraction of that length, and the river wouldn’t start in earnest until it reached its intersection with the Minnesota, but this symbol marked the start of a journey Pike would probably never travel.

Behind, the sky darkened. The wind rose and Pike shaped his sails to tack against it. He easily passed the *Brilliant Sky* and its big rubber wheels. The massive solar ship had never been a real threat. It might do well in the deeper waters, but in mud and rocks it was slow as cold molasses.

The morning ebbed into afternoon, and the trees flanking the riverbed didn’t block the sun when it finally peeked through the hazy clouds. Pike’s sails weren’t angled perfectly to catch the rays, but they made up for it by catching the wind—an advantage not specifically forbidden in the Dry Mississippi Race rulebook. He had checked a dozen times.

Another ultralight—*The Gone Again*—moved across the rocks ahead. *The Flying Muskie* gained slowly, but both ships moved faster and faster as the sky brightened. Pike leaned hard to steer through a long bend in the dry riverbed. His canoe tilted, sails brushing the leaves at the far bank.

The Gone Again moved to cut off Pike’s path. It bent wide around the corner, forcing *The Flying Muskie* to the southern bank, where the shadows still clung to the open earth of the riverbed. Pike’s fans sputtered as the powerful solar rays stopped and the curve of the river faced him directly into the wind.

The Flying Muskie lurched and lowered. Its runners knocked against a tumble of granite boulders. He yanked the lever hard and forced it to slow and hover toward the center of the riverbed.

Then, with a flip of a switch, the lower boom swung and he tacked again. The jib caught the light and the extra power lifted *The Flying Muskie* up over the edge of what must have once been a waterfall. His stomach fell from under him as his ship dropped to

the rocks below.

The hover fans caught his light ship to soften the blow at the bottom. Runners crunched against rocks and the ship nearly threw Pike over the side. His teeth jarred from the impact. When the ship steadied, he pushed his levers forward and *The Flying Muskie* flew on.

The Gone Again launched over the waterfall, but when it hit the rocks below something snapped in the ship's frame. One of its solar panels cracked and fell, and the ship veered away, crashing into the woods.

"Good luck," called the pilot as Pike sailed away.

"Thanks!" Competitive as they may be, the pilots of the Dry Mississippi were decent sports.

Usually.

He passed another ultralight not long later. He recognized *The Oval* with its smooth frame. Its silver-haired pilot scowled at him from atop her damaged vessel.

"Tough run?" Pike asked as he passed.

"Watch out for *The Hansen*," the woman said. "The new pilot's out for blood."

Pike wondered if he should stop and help her. In the early days of the Dry Mississippi, that might have been the custom, but that would mean giving up his chance at winning. He sailed on, sure that she could manage her own repairs.

The rest of the afternoon passed without incident. Pike ate from his stores and rode across the dry riverbed. The path smoothed quickly after the headwaters. Rocks gave way to packed silt, and soft undergrowth choked the long trail where nature had finally decided to reclaim the gully of the former river.

The Dry Mississippi was hardly the exciting, pulse-pounding terror one expected from the most technologically advanced race in the Midwest. Even as the brutal afternoon sun beat down on him, he could hear the far-off rumble of thunder to the north. The air was thick—heavy with the impending storm, but still the race crept forward.

Every ship he passed was one step closer to the front. A small ship cut its path across the accumulated silt, slowing whenever the rays of the sun were dimmed by clouds or trees. Pike passed it without so much as slowing, nodding acknowledgement to its wary captain.

Then, finally, the last rays of the setting sun disappeared behind the western trees. Pike stopped *The Flying Muskie* and settled it upon the rocky shore where it would have good access to the eastern sky. The Dry Mississippi Race was a solar race. According to custom, the race didn't move at night until the racers reached the still-flowing waters of the muddy river.

"Those cutthroat scabs!"

The voice rang through the forest as if the speaker were twenty paces away, but when Pike looked, he saw nothing. He finished tying down his sail and packed his gear so that it would be ready when he needed it. Then, he dropped to the hard earth and followed the rustling sound of a nearby competitor.

Forever Pha cursed as she pulled at her behemoth's wiring. Her wrench slipped and she smashed her knuckles against the open hull.

Pike stepped out of the dry undergrowth. "Problem?"

Forever yelped and threw her wrench, missing Pike's head by inches. He did not flinch.

"Stay away," she snapped.

Pike raised his hands, palms out to show he was unarmed.

"Sorry. I just thought you might be in trouble."

Forever's boots sent up clouds of dust when she stomped down onto the silt. "Those jerks who packed my gear are the ones in trouble."

Pike had packed his own gear. He had built his own ship. Forever probably didn't know how spoiled she sounded, but he decided to try another tack at the conversation. "It's been a good race. Good sun once we got going."

Forever seethed. "Anyone caught in that storm up north won't be seeing the sun for a while." She yanked open the pack next to her and dug through the tools. "Not that it'll do me any good if I can't reattach these connectors."

"You'll want the three quarters spanner."

"This is a race, Pike," she said to him, her tone suddenly very serious. "Go back to your little boat and get ready to be left in the dust."

The way she said it made Pike bristle. She hadn't even built her own ship, and she barely knew how to pilot it.

"There's more to it than winning, you know."

She scowled at him, but Pike thought he saw something else behind the hardness in her eyes. On his way back to *The Flying*

Muskie, he saw her wrench partially obscured by loose soil. He didn't bother to point it out to her.

She was going to leave him in the dust, after all. Who was he to offer help?

Far to the north, the dark sky strobed with lightning. Clouds swallowed the first stars of evening, and a cool wind blew from the east. Pike was glad he had tied down his sails well, because too much wind might be dangerous if the storm came south.

He gathered dry wood and started a small fire on the barren earth next to a fallen tree. Despite the long, hard day of the race, he wasn't tired in the least. His muscles ached from the effort of steering the most efficient path through the encroaching forest, but whenever he thought of sleep a dozen ideas danced through his mind. Improvements to his designs. Techniques for finding better paths. Pike heated a packet of curly pasta and white sauce over his fire and breathed in the ozone scent of the impending storm. Not far away, Forever cursed and crashed through the forest. She was more subdued now that she knew he was there, but she still struggled. It made him feel like maybe he had a chance to press his advantage.

It also made him feel horribly guilty for not helping her.

A narrow trickle of water rolled down the dry riverbed. Pike heard it first and crossed the silt earth to poke a toe at the small flow.

"Did you take it?" said Forever behind him. Her fists were balled at her side, her face a mask of rage.

The wrench. She still hadn't found it. Pike held out his bowl of pasta. "Have you eaten?"

She pressed her lips together and glowered.

"Yes, I know," Pike said. "It's a race. Still, you need to eat, and by the look of things, there won't be enough sun tomorrow for it to matter if all your panels are at one hundred percent efficiency or not."

Her shoulders slumped and she sat on the fallen tree. "You don't know what it's like."

Pike retrieved another pasta pack from his stores and set it on the fire. "Corporate life?"

"Wanting to win."

He sat next to her because there was nowhere else but the dry ground to sit. He handed her the pasta bowl.

She took the food reluctantly and forked pasta into her mouth as

if her people had forgotten to pack food. Thunder rumbled in the distance. "It's just—I'm screwing this all up," she said finally.

Pike took the second food pack from the fire. It was long pasta in a red sauce. Not as good as the first pack, but tart and flavorful. "Oh no, god forbid you lose face with the company."

Forever glared at him. "Like I said, you wouldn't get it."

Again, he bristled. "I've loved this race my whole life. Watched it from every angle and followed every winner since I was tiny. You don't think I know what it's like to want to win, but this race is all I have. It's my last memory of my father before he passed." The thunder rumbled again to punctuate his words. "I'm happy to share my food with a hungry competitor and I'm happy to wish you the best of luck, but I'm *going* to win."

Forever barked a laugh. "You're cute, Pike, but you know Hansen Photovoltaic doesn't lose."

"Hansen lost when it cut half its workforce and left my father out to dry. It lost when it abandoned communities all along the iron range. All that in the name of efficiency."

Forever stared down at the pasta. "They packed a dozen flavorless energy bars for me. That's efficiency for you."

Wind pummeled their campfire. Pike shoveled more of the pasta into his mouth. "Makes you just want to throw a wrench at someone, doesn't it?"

That brought a smile to one corner of her mouth. "I thought you were a bear."

"Was a wrench going to stop a bear?"

"Maybe," she laughed, "but only if my aim gets better."

Fat, heavy raindrops hissed in the fire and splattered against the dense soil. Lightning flashed to the north, much closer this time.

"Come on," he said. "I saw where it landed." He walked to the trees that separated their two ships and used a burning stick from his fire to illuminate the ground. After a quick search, he found the missing wrench.

"Thanks," she said, taking it from him. Their fingers touched and he couldn't help but notice how warm she was in the cool evening breeze. "You didn't need to help."

"I'm not," he said. "I'd only be helping if I told you that's the wrong tool for reconnecting Hansen panels. You want the star pliers."

She narrowed her eyes, no doubt trying to decide if he was lying.

"Thanks," she said warily. He watched her return to her ship in the darkness, wondering how much trouble it would be to pass her the next day. She seemed nice, he thought, but there was something destructive about her competitive spirit.

By the time he turned back to his camp, the fire was gone. At first, he thought it might be that the big raindrops had smothered it, but it wasn't raining enough for that. Not yet. The air was dense with the impending storm, and the sky churned like a boiling ocean.

No, it wasn't water from the sky smothering the fire. It was water in the riverbed.

The Flying Muskie creaked and Pike's eyes went wide. There was enough water to move the ship. It slammed against the far side of the canoe and flattened the nearby grasses. He jumped into his boat as it started to float away.

The rules of the Dry Mississippi Race were clear. There was to be no forward progress at night, except when the water flowed.

And now the water flowed.

Pike checked the lashes on his sail and folded down the mast. He wouldn't need it for the night, and it would only serve to topple his tiny craft in water too shallow for his retractable keel. He also brought the runners into a closed position so they became like bumpers to prevent his ship from being crushed against the rocks.

In this form, the craft would work as a flat-bottomed canoe and he could move at night. He *had* to move at night, because the slow race across the dry river had suddenly turned into a fast one.

"Good luck!" he called to Forever as he drifted past.

"You festering scab!" she called, somehow refraining from throwing another wrench at him.

"You're welcome for the food," he called.

There was no time to wait for her thanks, though, because the river was now as dangerous as he had ever seen in all his years of watching the race.

The trickle swelled to a flash flood in as long as it took to fold his mast. The flood crashed across the cracked earth, tumbling over rocks and dashing against fallen trees. In the dark, Pike could barely see the looming shape of the water. The sound of churning froth became his best warning of the upcoming trouble. The flash of lightning behind was his best light against the hungry shadows.

His paddle wasn't built for rapids, but it did well enough to steer

the canoe. He paddled hard with the rush of water, pulling himself to the deepest of the turbulent waters.

The Flying Muskie raked against the earth where the water spread thin across the dry soil. Mud slopped up onto his hands and arms, and he pried the boat forward through the muck. Behind, the sky was a blue-black wall of roiling chaos. He only hoped for the safety of the racers caught in that dangerous storm. Many would be out and exposed to the elements.

He would be in that same situation if the storm turned farther south. The paddle scooped water as he backpedaled desperately. A fallen tree ahead shifted under the force of the flood, opening a new path for water to flow. Quickly, his water disappeared, and *The Flying Muskie* lodged itself in the thick mud. If the sun were out, he could hover. If there was more water, he could float.

There was neither, so he was stuck.

Wind pummeled him. As the storm brought even higher floods, he imagined Forever setting *The Hansen* loose from its mooring. She had the better ship for deep waters, but these shallow rapids could still propel the big thing forward. That was enough to allow her to catch him, and he *needed* to be far ahead by the time they hit the point where the Mississippi met the Minnesota. Once those rivers joined, no matter how low they were, *The Hansen* would be in its element.

It could outstrip *The Flying Muskie* no matter how well-built the ultralight was. That was why *The Hansen* won year after year.

Innovation was once all that mattered. The world fell to ruin until people learned that individual achievement meant nothing without collective success. That was the spirit in which the Dry Mississippi Race started. People couldn't bring the Mississippi back to what it once was, but that was never the goal. The goal was to exist in the world in a way that didn't ruin it.

Then, the next generation started hoarding innovation again. People started keeping their best inventions secret, despite the culture of shared success. They formed groups like Hansen Photovoltaic and refused to share their best discoveries.

Hansen favored the kind of efficiency that left people behind. Not, in Pike's opinion, the kind of efficiency that made the world a better place.

He needed to show Hansen—show people like Forever—that normal people could still innovate. They could still win.

Lightning flashed. It cracked in the distance—south this time. It was all around. Pike turned and dread swelled in his gut. Forever Pha rode atop her monster ship using the crashing stream to propel *The Hansen* forward.

“Good luck!” she shouted as she passed. Pike thought he heard a mocking tone in her voice, but he couldn’t be sure because deafening thunder rolled across the forest.

There was no good luck to be had as long as his boat was lodged in the mud. Without the power to move forward, he’d stay there until morning. It was time to take a risk.

Pike pulled the line and the jib snapped open. The canoe lurched forward through the mud, throwing him back. His head slammed against the rail and lights flashed in front of his eyes.

The boat dragged forward slowly, tension between sail and mud threatening to tear the canoe in two. The wind shifted and *The Flying Muskie* leaned hard to the left.

“Move!” Pike shouted. He leaped up and grabbed the paddle. Scooping furiously at the muck, he nudged the ship forward. It scraped against an unseen rock. He leaned hard to the right to keep the ship upright. If his sails touched the muck—

The water swelled with a roar. *The Flying Muskie* broke free and launched forward. Pike wrangled the jib. Small as the solar sail was, it was too much for him to handle, especially with the rough waters. It would tear the ship apart before it would catch up with Forever. If he wanted to finish the race, he needed to play safe.

Pike tied the sail but left the lower mast extended. He steered once again with the paddle. The move felt like failure. He was giving up his chance to move fast. He needed to take every advantage he could to stay ahead, but while the rushing river felt like it was moving fast, he wasn’t moving any faster than *The Hansen*. Until the sun rose, he was drifting along the currents.

The lightning ebbed and the steady fall of fat raindrops eased until they were a gentle hiss upon the treetops. Pike paddled into the night and the eastern sky started to glow with hints of the morning sun. Exhaustion crept up on him behind his eyes and his mind felt like the muddy banks of the river.

A sound jolted him to attention. What was it? An echo behind the rumble of thunder? It was dark again. Almost completely black. He must have drifted off as his canoe floated downstream. He was lucky he didn’t snag or tip.

Then it came again. A cry for help. The crunch of shattering resin.

Pike paddled *The Flying Muskie* forward, then backpaddled as the current quickened. He rounded a bend and saw the source of the cries.

Forever clung to the remains of her ship in the middle of the rushing stream. *The Hansen* was smashed nearly in two on a granite stone the size of a house. Pike paddled hard to avoid the same fate, but his arms burned and his lungs ached. Lightning flashed across the sky.

Pike felt the shameful rush of victory. He'd win now. *The Hansen* was out of the race. If he could avoid the boulder, he could easily win the Dry Mississippi.

But that would mean leaving Forever in danger. There would be race helpers who would extract her from the wreck, but could she last until they found her? Forever saw him paddling hard. Their eyes met and he knew that he would never let her go. He wouldn't have if he had hated her as much as he hated the corporation she worked for, and—and that couldn't have been further from how he felt about her.

Not letting up, Pike aimed straight for the wreck. He slowed the craft as much as he could, but his bow slammed into *The Hansen* with enough force to smash through the already-damaged runner and crack the ultralight's hull. Water sloshed over the rail and soaked his boots.

"Jump in!" he called.

Forever looked at him in horror as more water piled over the rail. It was *The Flying Muskie* versus the flood, and he would be a fool to think she would choose him.

But *The Hansen* wasn't safe, either. The half that she clung to shifted. Its shattered panels broke and fell, narrowly missing the *Muskie's* bow. The jib mast slammed against the other broken boat and a tie came loose. As soon as it did, the wind caught the flapping solar sail.

"Jump!" Pike called again, more desperate now. The wind hauled him farther past the wreck. Forever had seconds to jump before her footing dissolved under her.

"I can't!" Forever shouted. "Go without me!"

"It's not safe out here." Pike grabbed the wreck and held on as tight as he could. Water slammed against his ship, dragging it

farther forward. "Jump and we'll both get to safety!"

Forever gripped his arm in her gloved hand. "You'll sink."

"I won't abandon you!"

"Pike—"

White light swallowed the world in one gulp. Every nerve in Pike's body screamed and he slammed backward onto the drenched floor of the canoe. It released from the wreck, swept away by the current.

Then, something thumped onto the floor next to him.

Forever paddled as hard as she could. Pike, still dazed, stared at his bloody hands. They were speckled with splinters of birch. The exploded mast.

The Flying Muskie slammed into shore and Forever leapt out, dragging it forward through the brush. By the time she returned to his side, he was sitting up and blinking the flashes of light from his eyes.

Then, he saw his ship. All his work, all his innovation and craft, ruined and not even a day into the race. Above, the sky still boiled, but the light of day struggled to make itself known in the eastern sky.

"Lightning," he whispered. *The Flying Muskie* had been struck by lightning.

Forever hauled him out of the canoe and they both made their way to the shelter of an ancient willow. Its long branches swayed in the tumbling wind. The river rushed on, but the storm faded. She placed a hand on Pike's shoulder.

He shrugged her off and stood. Rage boiled under his skin. "You knew the storm was coming," he hissed. "Your ship was geared out to take advantage of it even though you knew the risks." He paced, desperate to find somewhere to put the fury bubbling up in him. He jabbed a finger at his opponent. "I could have gone all the way if it wasn't for you. Your—your hubris!"

"You're blaming me for the storm?"

"I'm blaming you because you knew what kind of storm was coming and you didn't warn anyone about how dangerous it would be."

To his surprise, she didn't deny it. "Talia was my only friend."

"Talia Chen?" Pike sputtered. "*The Hansen's* old pilot? What does this have to do with her?"

"I was going to win one last time in her name. She did all the

work, after all. She even had the contingencies in place for a potential flash flood. If she hadn't died—" Forever waved a hand at the still-rushing river. "The race is primarily a solar race, but we both were ready to take advantage of hydro power. Always take your advantages, Talia used to say. Always do your best."

"Your best. You mean Hansen Photovoltaic's best. The best that money and secrecy can buy you. The best that can be extracted from the workers."

Forever stared at him until his anger ebbed away. He saw the sorrow in her eyes. Regret. "It never occurred to me to warn everyone else."

He sat next to her again and watched the sky lighten. "I'm sorry about your friend."

"I'm sorry about your boat." She moved her hand closer to his but didn't dare touch him. "It was a good ship. I liked the design."

"Thanks for humoring me."

"I'm not!" She chewed her lip. "Okay, there are a few changes I would make."

"The solar sails aren't as efficient as the panels, but their dual purpose is good for versatility."

"I never was able to get my panels wired in properly."

Pike buried his face in his hands and closed his eyes. "I should have listened when people said to leave the race to the experts. This whole plan was stupid."

Forever placed a hand on his shoulder and this time he didn't shrug her off. "Hansen Photovoltaic was afraid of you, Pike. They had whole teams trying to figure out how to beat you."

"I thought Talia did everything."

"Nobody ever said she had to listen to a bunch of short-sighted hacks."

He looked up. She was so close he could feel the warmth of her breath. His lips parted, but he couldn't think of any words. There *weren't* any words to untangle the mess of his emotions.

"They're really scared of me?" he asked, finally.

"Terrified."

Their eyes met and a thrill went down his spine. He couldn't have stopped the grin if he had tried. "Then let's be terrifying."

The lightning had ruined *The Flying Muskie's* lower mast—some of its shattered remains were still lodged in Pike's forearms. The strike had scorched half of the jib and put fractal burns across the

hull. Impacts had damaged the hull, shattering even the birch skeletal frame in places. Water had poured in mostly over the top, but the boat wouldn't float for long in its current shape.

Worst, perhaps, was the damage to the solar couplers. The unit was fried. It still smelled of ozone and burned copper. Even if he got the main sail into the sun, it wouldn't pull the power it needed to skid across the muddy shores. The water slowly receded as he dragged *The Flying Muskie* up the muddy shore.

"How can I help?" Forever asked.

Pike chewed his lip. He thought of his father. It was so easy to give in. So easy to look at misfortune and assume it couldn't be any other way. If it wasn't meant to be, then it wasn't meant to be. All these years, Pike had worked to show his father that giving in wasn't right. Sure, Hansen Photovoltaic hadn't wanted his old man's services anymore. Why did that mean he had to stop? Pike's father wasn't worthless just because he wasn't employed. He could have made something of himself, even then.

"Collect birch bark, branches from that willow, and anything that looks like pine sap."

"What are you going to do?" Forever asked.

"First, I'm going to prep my patch kit so I can repair the hull as soon as you find the bark and sap." Pike pointed to *The Hansen*, still lodged against the boulder in the middle of the rushing river.

"Then, I'm going to see if I can find some salvage."

Her expression was skeptical, but she said nothing and got to work. Pike did as he said, and when she returned with broad sheets of the white bark, he repaired the damaged hull. Where the hull's frame was shattered, he reinforced it by lashing supports into place using the willow branches. All the while he watched the water.

The first ship to come was the *Brilliant Sky*. Its bearded pilot waved as the big ship's wheels paddled in the water. "Need a hand?" he called.

Because it was still that kind of race. This was once a race where people helped each other, and even though the younger pilots tended to be more competitive, they still knew how to come together when needed. The *Brilliant Sky* ferried Pike across to salvage the equipment he needed from *The Hansen*. Then, when it was done, the bearded man brought his ship to shore and watched.

"Go," said Pike. "You're winning."

"I'll wait and see if she floats," said the man.

The next ship to arrive was the ultralight *The Oval*. It showed more damage in the scrapes along its starboard side, but otherwise it had survived seaworthy. Its pilot—the silver-haired woman in dark blue coveralls—steered to shore and watched Pike work. After that, every ship that arrived found a place along the shore.

Pike and Forever worked on *The Flying Muskie*. He showed her how to patch the remaining hull using boiled pine sap, then he set to work rewiring the solar couplers. His hands flew over the parts, his years as a panelman bringing him the confidence he needed to get the job done.

“You can wire those last two in parallel,” Forever said.

“That’s not standard.”

“It’s not standard because studies show that it causes more frequent service calls in residential settings.” An impish smile crossed her lips. “But it’s better in almost every other way.”

He stared at the wires, then at her, then at the wires. She was right. The final array of couplers could be wired in parallel. It would give him a more even distribution of power and therefore tighten up the controls. He twisted the final wires and raised the main sail to the sun.

At first, there was nothing. Pike’s chest ached from the pressure of all those eyes on him. Sun beat down on the muddy shore and raked across the tossed solar sail. Had he done it wrong? Had he rushed and messed everything up?

Forever’s hand slipped into his own and all the pressure released. It didn’t matter if they’d failed. They had tried, and they had done it together. That was more important than anything at that moment. The race could go on without them.

Pike looked into her eyes and drew her close. Their lips touched and he breathed her in.

The Flying Muskie chirped its power alert. The fans powered up and the ship lifted from the mud. The pilots of the Dry Mississippi cheered.

“Let’s go!” Pike shouted, pulling Forever into the ship.

She hesitated. “I can’t—”

“Come on!”

The *Brilliant Sky* was the first to move. Its huge wheels spun and the beast of a ship surged forward out of the mud. The others advanced as one, resuming the race in full.

“It’s *our* ship now,” Pike said. “We might not win, but we’re

going to finish this race.” *The Flying Muskie* lurched to one side and he had to twist the controls to keep it steady.

Forever climbed in, muck sucking at her boots. She rolled onto the floor of the canoe and the whole thing shifted under her weight. “It won’t hover with me in it,” she said.

“It doesn’t need to.” Pike slammed the controls forward and the boat slid across the mud, splashing into the water as the last of the waiting ships hurried forward. “Long as our patch holds water.”

The Flying Muskie sat low in the water with the extra passenger. *The Hansen’s* solar couplers were heavier, too, and together the boat sat dangerously close to capsizing. But it held. Pike switched from hover mode to deep water and the fans became underwater propellers. The retractable keel plunged into the water. The ship pressed forward.

It wasn’t fast, but Pike didn’t need fast. He showed Forever how to run the main sail while he paddled. The sun warmed them and dried their rain-damped bones until all that was left in the world was a brilliant, beautiful afternoon on the headwaters of the mighty Mississippi.

The ships of the Dry Mississippi Race stayed close together in pods of two or three, and those with damage were helped by those who had weathered the storm. Every ship except for *The Hansen* reached the place where the Minnesota River joined the flow. Even the badly damaged *Gone Again* and *Oval* had joined them, wearing their repairs as badges of honor.

Forever leaned her head on Pike’s shoulder as they drifted through the old Twin Cities and he never wanted her to leave. For a long time, they simply watched as the solar arrays of the biggest city for miles gleamed in the setting sun. The metropolis was equal parts lush greenery and panel-encrusted buildings, designed and redesigned to allow its people to live sustainably with the nature that had reclaimed it so long ago.

“She would be honored by this,” he finally said. “Talia, I mean.”

“I know.” Her voice rang of loss and longing. “And your father would be proud of you.”

“Yeah.” He put an arm around her and pulled her close. The setting sun cast the sky in shocking shades of orange and red. A weight lifted from his shoulders. “Now what?”

“Now?” A mischievous smile touched her lips. “We might as well sail the rest of the Mississippi.”

“In this boat?” Pike shifted his weight and water sloshed over the side.

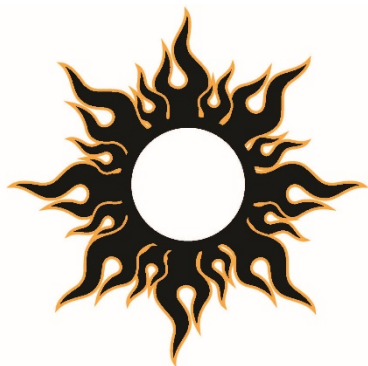
“Well, we’ll have to build a new one, of course.”

Pike grinned. Already, ideas for new designs were spinning through his head. It would need to be able to sail back *up* the Mississippi as well. “You’re not worried about your job?”

She shrugged. “I was going to quit after the race anyway. Go independent.”

He kissed her then, and they floated past the end-of-race celebrations. Together they would design a ship capable of sailing the whole river, and he hardly knew where they would start.

Together, they would figure it out.



WALKING THROUGH FOG

by Sarena Ulibarri

“Each one is like a little birth,” Malena says, her gaze dancing with wonder along the wires of the fog harps. Dew swells on the wires until each drop slides down, joining with the next and the next, delivered into the trough below. “Thousands of little births, every morning.”

She herself is near to bursting like one of those dew drops, ready to welcome our child any day now in a rush of blood and water, pain and joy. She turns to me, smile radiant, and my heart aches at how beautiful she looks with the fog flowing around her.

“I see why you like to walk here, Lexy,” she tells me.

I lace my fingers with hers and we continue along the hillside, much slower than my usual pace.

It isn't the fog harps that draw me to this place, though it is true they add a strange and surreal beauty to the hillside. It's the fog itself that I enjoy. At its thickest in the early mornings, I can hardly see a step in front of me, but I don't need to. I have walked these trails so many times that my feet already know where to go. That intuition honed from so many past experiences feels supremely comforting.

This morning, Malena insisted on coming with me after the baby kicked and woke her earlier than she normally rises. With her by

my side on this familiar path, everything is new again, unsteady, delicate and exciting. The same as our life now, each stage of the pregnancy new, each day full of change.

Malena's fascination with the fog catchment systems does give me a fresh appreciation for them. They need little maintenance, no mechanisms to power them beyond gravity. The wires guide the dew into the troughs, which empty into the culverts, flowing through the filters and filling the tank that serves our small town. A system born of desperation, which provides such abundance that we've nearly forgotten why we needed it.

As we round a switchback in the path, Malena grips my hand and points up the hill with a sudden gasp. I squint through the fog, but all I see are vague shapes.

"What is it?" I whisper.

"A bird," she whispers back. "Don't you see it? It's nearly as big as a person."

My eyes search for bird-shape, seeking form in the formless fog. And then I see *something*, a blur of movement, a swirl in the mist.

"It flew off," Malena says. She clutches my arm. "Lexy, it was a *crane*."

"A crane? They're extinct, aren't they?"

Malena shakes her head, face beaming. "Listen, you can hear them."

We stand still, listening, but all I hear is the gurgle of water as it flows from the fog troughs down toward our community.

* * *

"I don't want a man from the city," Malena had said when we swiped through profiles of possible donors.

"The cities aren't polluted anymore, though," I reminded her, knowing she must be referring to the way pollution was said to reduce sperm quality. "Pick a young man, and he'll have never breathed the car exhaust and coal fumes of the old world."

Malena shook her head. "Still."

So we kept searching until she found a man with dark eyes and a sharp nose like mine, from a community like ours a hundred miles to the north.

"Somewhere they still get snow," Malena said, and I knew her mind had been made up.

The instructions we received were clinical, but we turned the insemination into a ceremony. Her cycle tracker app alerted us

when ovulation was likely, but I could always tell purely from the sensual glow in her eyes and the thick wetness between her legs. I kissed the soft rosebud of her mouth, our bare breasts pressing softly together, and then carried my tongue lower, working until beads of sweat stood out on her skin, bringing her to bursting before sliding the warm tube in. We repeated the ceremony the next night, and that was all it took to coax our future child to her womb.

* * *

As glad as I was to share the experience of my morning walk with Malena, I'm relieved the next day when she decides to stay in bed. I follow the paths between the fog harps, enveloped by the low clouds, but I cannot let myself be swallowed by it the way I normally do. My eyes keep trying to make sense of the shapes I see in the blurred landscape, searching just beyond the line of visibility for the tall bird Malena said she saw.

At the top of the hill, I notice something—just a gray shadow, a blurred outline. It could be a tree, or a rocky outcropping. As many times as I've walked this hill, it's only the path itself that I have memorized, not what lays beyond those borders. I stand very still, watching the spot, but the fog thickens until I lose sight of what I thought I saw.

Instead of continuing along the well-worn trail, I climb straight up the hillside. My shoes sink into the marshy native grasses, slide in the muddy soil. Partway up, I realize that my clumsy endeavor has surely scared away any delicate creature, bird or otherwise. I reach the plateau at the top and crouch low toward the earth.

A spattering of three-toed prints dent the mud, overlapping enough to become somewhat indistinct. They could be from the feet of a smaller bird, or even an imprint from sticks or leaves. But I smile, entertaining the idea that Malena's crane could be real, that the scientists who reported them extinct in the wild, along with so many other species, had missed a few nests. That maybe our little town, with its foggy hillside and worm-filled gardens, could be a haven for these birds to revitalize their numbers.

I aim the camera on my watch at the muddy ground, but when I try later to show Malena my photograph of the prints, it is too blurry to see anything at all.

* * *

"Don't you remember the sandhill cranes?" Malena asks over a dinner of the fragrant soup she's been craving.

I shake my head. “I was a city kid, remember?”

“Even in the city,” Malena says, “for a few weeks, every year, they’d pass through. We’d see them anywhere there was a field. I remember spotting them in city parks and high school football fields and golf courses.”

Malena and I are nearly the same age, and we’re talking about the same Midwestern city, yet I have no memory of the cranes. I’m startled by this omission. Had these creatures truly flown overhead and grazed in nearby fields without me realizing they were there? How had I managed to make them disappear from my awareness even before they disappeared from the ecosystem? It is a guilt I don’t know what to do with, weighing heavy on me.

She goes on to tell me about a road trip her parents took her on when she was very young, to see something called the Festival of the Cranes.

“At this revitalized marshland way down in New Mexico, where the cranes would spend the winters,” she says. “You had to get there early in the morning. Even earlier than *you* like to get up. Hundreds of cranes. Thousands, probably. Snow geese, too. All of them waiting out the night in a shallow lake, and then taking flight at sunrise. People came from everywhere to watch, just to see so many birds, and take pictures.”

I find some of those pictures online, the sky so full of birds they nearly block out the sun.

Malena rubs her swollen belly affectionately. “I wish we could take our little one to see something like that,” she says sadly.

“Maybe this will be the crane’s new nesting grounds after all,” I say. “Winters are warmer, so they won’t have to go so far south.”

Malena doesn’t respond and I recognize that expression on her face: a crack of doubt. She’s second-guessing herself, weighing what she knows she saw against the unlikeliness of its reality. Letting her mother’s voice in to tell her she’s been imagining things again.

The next morning before my walk, I stop by the greenhouse and take with me a tin of worms. No matter what, they’ll be good for the soil and the smaller birds that visit the hillside, I reason, and if the cranes are there, maybe they’ll be enticed to stay. I toss the worms into the muddy soil to either side of my path. This hill does get saturated from the fog for about half the year, but it doesn’t look anything like the flat marshland habitat in the pictures Malena showed me. Still, if the cranes are out there, maybe they’re

adapting to what's available, making do the way the rest of us have had to as the world changed around us.

* * *

The day we'd planned to announce Malena's pregnancy to our community, our neighbor Kelly told us about her miscarriage. Her third, she confided, and her words had dropped like a stone into my gut. I turned to Malena, watched her unconsciously touch her still-flat stomach while she offered her condolences to Kelly. I started to wonder about why there had been no births in our town since very early in its history, why all the older women in our community gave tight-lipped smiles when we excitedly shared our plan to conceive. Malena and I had been young teens when our parents, and a dozen others, fled the cities amidst turbulent times, seeking resiliency in the support of each other. The last baby to be born in our community was a teenager now.

We decided to wait to tell anyone—a whole month, as it turned out. That night, I went down an internet rabbit hole, scaring myself with charts and statistics about birth rates in the last decade. Even with pollution and greenhouse gases mostly under control, human populations were declining right alongside the animals. It was the heat, these higher temperatures we hadn't yet adapted to, that made conceiving more difficult, carrying to term more dangerous.

"We should have waited," I told Malena. "We should have waited until the fall, so you wouldn't have to be pregnant during the summer."

She slid onto my lap, blocking the computer screen. I wrapped my arms around her, the warmth of her body that always felt so comforting now greeting me like a threat.

"We'll be fine," she said. I pretended I believed her, but it wasn't until I walked through the first fog of autumn that I let that knot of worry loosen.

* * *

Once the sun burns off the fog, it's too hot to hike the hillside, even on an autumn day. But I go up there at twilight, which I have not done in years. Though I still know every step of the path by heart, the landscape looks alien under the purpling sky. Without the fog, I can see for miles, across the grass-covered rooftops of our town, to the last rays of the sun sinking into the horizon. The empty, open space almost makes me dizzy. A full moon rises behind me, bright silver and as round as Malena's belly.

Heat radiates off the rocks, the ground warmed from the blistering day. I search the area for Malena's bird, sure that I will be better able to see its outline with the fog cleared. I don't know why it's become so important to me to prove its existence. The hope of something lost restored, the promise of something new added to our simple lives. Or maybe it's only Malena's smile I crave, the enthusiasm of her "I told you so!" when I can prove that she wasn't imagining things. Her mother often accused Malena of letting her imagination blur out the harsh realities, the way I liked to walk into the fog until it blurred the rest of the world away. I wanted the crane to be real because I wanted Malena's version of the world to be real. A softer world, full of beauty and love, the way we'd tried to shape our home to be.

I spot one of our neighbors out here, re-wiring a fog harp. He waves to me and asks me to hold the frame steady while he ties something off.

"Have you ever seen cranes out here?" I ask him.

He thinks I'm talking about the construction equipment and starts explaining how all the fog harps were hand-installed.

"No, the bird," I say with a laugh.

He hasn't, but he tells me about a podcast where people report sightings of supposedly extinct animals: someone who swears their tree bark had been stripped by a moose, someone else who spotted a whole kaleidoscope of monarch butterflies swirling around the base of a wind turbine.

A splash interrupts his story and I turn toward it so quickly I almost lose my footing on the dirt path. Water dribbles out of the side of a fog harp trough, catching in the last bits of pink sunset. I approach the harp slowly, expecting to find that a frog has made its home there. The harp wires are bare, all the morning's dew drops fallen or evaporated by the sun. The trough *should* be empty as well, drained down to the town's storage tank by mid-day. Yet as I draw closer, I see that this one is full. The water shimmers with the ripples of whatever caused the splash. I kneel down to investigate, and find a tiny dam of sticks and leaves blocking the chute. They are woven tightly together; perhaps a bird nest blown there by the wind, or one built during fogless days and abandoned once the water arrived.

I tug the obstruction free and the water rushes into the newly cleared pathway.

My watch chimes with a message from Malena: “Lexy, where are you? It’s starting.”

I run down the hillside, no longer concerned about the noise of my footfalls, no longer aware of anything around me except for the next step, and the next.

* * *

Malena’s doula greets me as I arrive breathless at the door and shuffles me into another room where she makes me drink mint tea and perform a breath-centered meditation before she’ll let me into the room with Malena.

“A birth is not a crisis,” she reminds me.

But my mind is still anchored on TV dramas full of screams and bright lights and masked, shouting doctors. My own birth had certainly been a crisis, according to my mother’s story of the emergency room C-section that brought me into the world.

“I’m scared,” I admit.

“A woman’s body is wise,” the doula says. “We’re built to bring life.”

I frown, bite back some obscenities about gender essentialism. My own body is certainly not built for it, all sharp angles and hard lines. I start to hyperventilate again at the mere thought of being in Malena’s place. The doula makes me do the meditation a second time.

I try to push that all away and remain calm as the doula finally leads me into our living room. Malena is walking a slow circle around a shallow tub. Dim candles and flowers and gemstones decorate the tub’s rim. My mother is seated on the couch, and most of the women in our community are here, too. The midwife has not arrived yet, but the doula assures me she is on her way. Malena’s radiant smile washes away the last of my worries. She wraps her arms around my neck.

“I was up on the hill again,” I tell her. “Searching for your crane.”

“Crane?” my mother asks.

I recount the story of what Malena saw on our walk a few days before, while Malena breathes through a contraction.

“Maybe it was a stork,” my mother says. “That would be appropriate, wouldn’t it?”

Everyone in the room chuckles at that, except for Malena.

“It was a crane,” she insists through clenched teeth. The doula

wipes sweat from her brow. “A sandhill crane. I remember what they look like from when I was younger.”

“Where did the story of storks bringing babies come from, anyway?” Kelly asks.

“There was a fairy tale,” my mother says. “The storks would migrate south for nine months, and scoop babies out of a pond to bring them back north to reward the good children of the village with new brothers and sisters. Or for the bad—”

She stops short and shakes her head. Her eyes catch mine and I swear I see a glimmer of the same fear in her eyes as I hold in my heart. Because we both know the second half of that fairy tale: to punish the bad children, the stork delivers a stillborn. I’m grateful she thought better of speaking that morbid tale into this sacred space.

“The only place I’ve ever seen storks was in Spain,” Kelly’s mother says. “On the train outside of Madrid, we passed by a town with big white storks that had built tire-sized nests on every rooftop. Maybe it was a ghost town, I’m not sure. Or maybe the people had to live with all these giant birds that had taken over. There were so many of them.”

“Were storks on the List?” my mother asks. The list of the thousands of species rendered extinct in the last fifteen years due to climate change.

Kelly’s mother shakes her head. “I don’t remember.”

None of us has the heart to look it up.

“It was a crane,” Malena insists again. “It didn’t have the big beak like a stork.”

At a significant look from the doula, we are all reminded that we are here for Malena. To support and love her, to bring our private ceremony to completion with a community celebration. The doula begins to hum a song and the rest of us take up the tune, forgetting all about cranes and storks as we sink into the ritual of birthing.

* * *

“A little boy,” the midwife announces as she lays the pink-red child on Malena’s warm skin. She’s out of the pool now, propped up by pillows and blankets on our bed.

“Unless he tells us otherwise,” Malena says.

She motions for me to come closer. I snuggle in next to her, marveling at this new human that I watched the midwife lift out of the birthing pool, like a stork scooping a dreaming baby out of a

lake. I'm wrung dry with worry—not as tired, surely, as Malena, but exhausted from the long night all the same.

The rest of the women leave and come back so many times I lose track, bringing food and gifts and fresh bedsheets. The first few days blur together, our routines and plans upended, suspended in a timeless haze. The child is not yet oriented to the cycle of day and night, knows only need and sensation.

I had thought my fears would subside once the birth was safe, washed away in the relief of the baby's cries. But I find that I'm even more anxious now. The future stares me down, full of unknowns and choices to make, paths I've never tread before.

One morning, I suddenly become aware of the fact that it's morning, for the first time in days. Malena finds me at the window, gazing out at the hillside.

"You should go on your fog hike," she tells me.

I shake my head. "I don't want to leave you."

"It will be good for you to clear your head," she says. "We'll be perfectly fine." The baby is swaddled in a sling that drapes over her shoulder. Sleeping peacefully, for now.

Finally, I agree to go. She was right, of course. The cool air sharpens my senses and I feel calmer with every familiar step. It is slightly later than I normally make this walk and the fog is not so thick. It's nice that way, being able to see just a few steps in front of me. Dew drops on the wires of the fog harps slide with urgency down into their troughs. *Thousands of little births, every morning.*

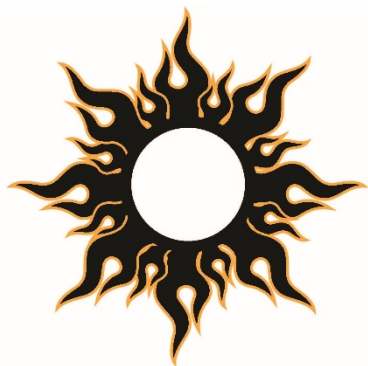
An odd sound pulls me out of my reverie. It's a trilling, almost metallic-sounding crescendo, like the purring of metal strings. I stop and squint through the fog, searching for the source of the music.

Just as I decide it must have been a breeze blowing through the fog harps, I see it. Halfway up the hill, a large gray bird dips its head to poke around in the grass. There are three of them, nearly as tall as me, yet despite their size, they're lithe and delicate. I can't recall ever seeing a bird so big before. And I don't know if they are sandhill cranes, or storks, or herons, or something else. They look like dinosaurs to me, with their long, curved necks and iridescent gray feathers. No matter the specific species, they're a creature that has not been seen for a long time.

I should tell someone, I realize. Not the cryptid podcast that our neighbor told me about, not unless they're the only ones who will listen. There will be scientists who will want to know,

conservationists who can provide what the birds need better than me with my pocket full of worms.

Only, I've left my watch back home, forgotten in the blur of days since our child was born. I crouch low to the ground beside one of the trickling fog harps, watching the family of birds feed on the hillside. I will have no photograph or video to prove they were here. They'll surely stay hidden during the day, finding shelter from the harsh sun the way we all do. Perhaps they'll move on to the next stop in their migration before anyone else can see them. But I know they were here, and that Malena was right, and for now, that's all that matters.



FOR THE LOVE OF LOUDNESS

by Jason Palmatier

A hot breeze whispered through Sundew Greener's straight black hair, disturbing the quiet of the high desert day. A lizard skittered across bone-dry sand with a soft rustle, crackling a branch on a creosote bush. The faint swooshing of air over a vulture's wings wafted down from on high.

Sundew brushed a lock of hair from her face and squinted down the road at the shimmering outline of a car that approached at highway speed. Within seconds, it wooshed past her with a faint electrical hum and puff of minimally disturbed air.

"Gol darn it!" Sundew threw her woven hemp hat to the ground. "Can't anything make a proper racket around here!"

Cam jolted upright on top of the earth home's entrance, long dreadlocks swinging up like the tentacles of some Caribbean Sea beast before flopping to rest on his bare chest. "Ya man, what was that?"

Sundew kicked her hat and pointed with her whole hand at the already distant car. "That's the only thing to pass by here in four hours and it's quieter than a shrew's fart!"

Cam looked after the retreating car, blinking the sleep from his eyes. "Headin' to Greener Pastures, true."

"Of course they're headin' to Greener Pastures. Everyone is

heading to Greener Pastures!”

Greener Pastures loomed on the horizon, looking like a multi-armed white mushroom whose three dozen irregularly spaced caps were topped with green. Sundew knew that each of those caps was over half a mile across and contained a solglass dome filled with plants of all kinds, watered by the recycled moisture that had been pumped into them at the time of their construction. She knew all this because her nerdhead grandfather designed the whole thing and oversaw its construction. The facility was so large and so far away that the base of it was lost over the horizon. Everyone from these parts and beyond ended up at Greener Pastures, once they tired of living the easy life on their own and decided to live it with others.

“You can’t spit a seed in any direction without hitting some old timer heading ‘quietly’ to Greener Pastures,” Sundew grumbled.

Cam rubbed his stomach. “Big time nice over there. Toured it last summa’.” The chiseled Jamaican slid from the roof of the earth home’s entrance and ducked inside. “Swimmin’ pools everywhere. Buffets for miles.”

Sundew snatched her hat from the ground and stomped after him.

“Yow now, so much noise!” Cam said as she thumped down the long, straight stairs into the cool interior.

“Noise? Noise? That’s the problem! There ain’t no noise around here! Just humming and whirring and clicking and drips!”

Cam looked at the protein synthesizer, sprout fan, seed sower, and moisture coalescer as Sundew angrily gestured to each one.

“Not a one of them makes a proper *boom* or *grrr* or *wub-wub-wub*.”

Cam frowned. “Ya, but what does?”

“Oh, I don’t know, this?” Sundew ripped an old poster from the wall showing an ancient, aggressive-looking car with a ridiculously long hood and two positively barbaric pollution pipes sticking out the back. Everything about it looked loud, especially the DayGlo green paint job with two black stripes cutting through it from nose to tail.

“Ah,” Cam said, nodding his head. “Mi grandfada said de’s as loud as thunder. Hurt ya head when de went by.”

“Exactly! Some proper noise!”

“But de’s long gone. No one wan ’em anymore.”

“I want ’em!” Sundew yelled. “And one of these!” Sundew ripped another, torn poster featuring a leather-clad man holding an oddly flat guitar hooked up to an obscenely large amplifier. “And one of these!” She jabbed a finger at a picture of a girl with pink, spiky hair holding a boxy contraption of some sort on her shoulder that appeared to be blasting noise from the large round speakers that took up each end of it.

“All bangarang,” Cam said, waving her away. He picked up his island guitar with inlaid palm tree motifs. “Dis much better. Nice sound, no need for amp. Same with dis.” He tapped the music player that was clipped to his front dreadlock, eliciting mellow steel drum beats from the wireless speakers in the earth home that instantly made Sundew thirsty for a faux-jito. “Run on de sun. Charge just by walkin’ outside.”

“And it won’t crank above 50 decibels!” Sundew shouted.

Cam winced. “Don’t need ta, you can hear it fine...when ya not shoutin’.”

Sundew growled and stomped past him, into the rows of aquaponic tanks with fish swimming beneath the plant roots and sunlight filtering in from the solid sheet of solglass that served as the roof. Set right at ground level, the solglass regulated the light coming in to prevent plant scalding, whisked away excess heat to drive the earth home’s sterling engine and to keep the earth home’s temperature optimal, and also served as a solar panel that generated electricity directly. It was just one of the inventions that had catapulted humanity from the Sin Age into the Sun Age and it did it without making a single, solitary sound.

Sundew shoved the thin biolastic door to her room open with excessive force and kicked her way through her few possessions to her backpack. She shoved in her full water bag, compressed fishy protein bars, and a ripe kumquat and threw it onto her shoulder with a vengeance.

“Whatcha’ doin’?” Cam asked from the doorway.

“I’m gettin’ outta here and findin’ the Banger,” Sundew said, shouldering past him.

Legends said that late on windy nights, strange noises rolled in from the flat, rock-strewn expanse of scrub and sand about them. Scrapes and pings and low, mournful howls that tingled your scalp and set your teeth on edge. And, every once and while, during the hardest blows, there would ring out a gut-chilling bang. The High

Desert Banger. Loud, sharp, and alien, the sound would light the old timers' eyes with faint recognition, eliciting mutters and head shakes before they lapsed back into private reveries. Everyone called it baseless fancy but Sundew believed. The High Desert Banger was out there, banging away, and she was going to find 'em.

Cam trotted behind her as she ascended the back stairs into the garage. The temperature rose appreciably as she emerged into the sandy outbuilding and threw her pack onto her windboard.

"Hol' up, the High Desert Banga is jus' a legend," Cam said, spreading his hands in appeal. "Deh ain't nothin' to find out der."

Sundew glared rebellious teenage daggers at him. "I ain't sittin' around in comfort and peace until I get old enough to waste away in comfort and peace in some mushroom hotel where everything is perfect and everyone dies happy. What kind of life is that?"

"Uh...the good life?" Cam said.

"The boring life!" Sundew yelled. She punched open the garage doors and kicked her board out into the hot desert sun. With an extended pull on the sail's cross brace, she arced around the solglass roof onto the road and was off.

"Don' stay out more dan a week!" Cam yelled after her. Sundew resolutely kept her eyes forward, but caught a glimpse of her pseudo-guardian in her racing side mirror as he stretched and scratched his stomach. His nonchalance at her exit stoked her rebel fire to new heights. The world was such a mundane and safe place that adults didn't even worry about kids being alone in it anymore.

She thumbed the electric drive button and pushed the sailboard up to max speed. With a quick tug, she transitioned the sail into its horizontal position so it could soak up the most sun and keep the drive batteries charged. The biolastic bottle she'd jammed between one of her back wheels and the side of the board chattered away, making as much noise as she could manage. Still, it was annoyingly quiet and she knew it would get beat to hell within a mile or two and get ejected onto the road behind her to decompose in a week. You couldn't even litter proper in this sun-blessed place!

The earth homes of her closest neighbors whipped by, recognizable only in their sameness: a mounded entrance door, a flat expanse of solglass and a large garage behind it all. Every friendly wave deepened her scowl and she ducked down to avoid them. Everyone waved to everyone else nowadays, whether they knew you or not.

Near the last of Greenview Settlement's earth homes, an automated foundry tirelessly excavated a new earth home for whoever had decided to move out here. That's how it worked now: you wanted something, you asked for it, then you hung around until a foundry rolled over the horizon and built it. Cam and the other adults said it was paradise on Earth, but Sundew found it absolutely boring. Everything the foundry built was sun-powered, efficient and quiet. She wanted some noise!

Ten minutes outside of Greenview the desert wind kicked in and Sundew popped her sail vertical to catch it. The windboard picked up speed, biolastic bottle chattering away with a gratifying *brrrr* for three tenths of a mile more before it ejected out the back and plopped down in the scrub brush.

"Dang it!"

She pulled back hard, then eased up, carving great sine waves across the baked blacktop, working the rushing of the wind for all the decibels it was worth. It still wasn't enough. She set her jaw, straightened out for maximum speed, and held fast to the center line. Two hours later the squat rock mesa she'd spotted on her plascreen's WorldView app rolled by on her left and she slowed just enough to curve around it onto the hard-packed dirt road that led to what she called the "Big Blur."

Nothing said the Big Blur was anything other than a data error produced by the recent spate of solar flares, but Sundew felt at her core that the smeary image on her screen meant something more. First of all, it had persisted through archived images going back more than twenty years and, as far as she could tell, the whole rest of the planet had been mapped out with perfect clarity. What are the odds that a little patch of desert ground only a day's ride from her place was going to go missing? It had to be the hideout of the High Desert Banger.

A rain-guttered trench swept toward her, kicking her out of her reverie.

"Son of a biscuit!"

She yanked back and down, popping the base of the sail out of its clip and flattening it horizontally like a wing. The windboard bucked hard into the air, front wheels lifting off an inch shy of the deep washout. Sundew fought to keep the sail level as her forward momentum bled away, taking her lift with it. The wheels plopped down with a gravelly crunch a moment later and Sundew heaved a

sigh of relief that quickly turned into another curse as a second washout loomed. She punched her electric assist button, built speed, and flattened the wing again at the last second.

Five miles and forty-five washouts later she landed on the edge of a surreal basin surrounded on three sides by high mesas. She stepped off her windboard and shoved her sail over onto the ground. Her hands rose to clamp onto her head as she walked forward.

“What is going on?” she asked, pulling at her hair.

Relics of the past filled the basin from wall to wall, perched and piled one upon the other. Old train cars, metal diners with faded neon signs, ancient refrigerators like she’d seen in history classes, giant saws for cutting innocent trees into fascistly-uniform boards, old metal barrels, an entire wooden house, piles of tires made out of real rubber, old-timey highway signs with actual printed names on them, the remains of what looked like an airplane, and more than two dozen stripped down hulks of cars, trucks, and motorcycles.

“How has this stuff not gotten recycled?” she cried, spinning around in awestruck wonder. She stumbled deeper into the unimaginable spread. “This is...*awesome!*”

Her final word echoed off the walls, washing back over her multiple times as she spied more new old things that she’d only ever heard about.

“Gas pumps? Burger joint signs? This has to be it. This has to be the lair of the High Desert Banger!”

Sundew ran down the path that led between the piles, calling out, gasping at the sight of an old helicopter with only one rotor sitting with one skid propped on an antique bathtub. She thumped up the steps of the old wooden house, peered at the empty interior through wavy glass windows, yelled out across the piles as the evening wind picked up.

“Hello?”

No response...except for a low, mournful sigh from a stack of rusted metal pipes and the faint banging of the helicopter’s rotor against an old street sign.

“There’s someone out here, I know it,” she declared.

While she pondered ways of drawing the Banger out of hiding, the rays of the setting sun burned in through the gap in the western side and struck her full in the face.

“Ack!” She scrambled down from the house’s porch, shielding

her eyes with her hand and turning her head at the intensity of the glow. And that's when she saw it. A door, just above the northern pile, set almost flush with the side of the mesa, painted to blend into the stone itself. She never would have seen it without the sharp angle of the sun casting a long shadow from its shallow outer casing.

"Ah, ha! The Banger's lair!"

Sundew clambered up the side of the train car, sidestepped along its roof, and jumped onto the small ledge that lay hidden behind it, right below the door. She inspected the outside carefully, looking for a handle or switch.

"Not a gal-darned thing," she pouted. "Dang it!"

She kicked the door in frustration.

It swung open with a bang.

She stood in stunned silence for a full five seconds before jumping inside.

She found herself in a long tunnel, carved into the rock itself, but with a wire grate sitting two inches above the floor to provide a smooth walkway. As she clomped down it, marveling at its ringing sound, she heard faint mutterings and a couple sharp curses. She swallowed hard, considered calling out, then clamped her mouth shut. Who knew what kind of person lived in an old junkyard far from the settled lands? The Banger? Maybe. But if it wasn't him...

She crept forward, coming to the end of the tunnel to peer over the edge of metal steps at a hollowed-out cavern littered with work benches and wires, tools and tarps. A three-story cliff-house with rounded windows and doors stared back at her, carved from a massive pillar in the center of the room that held the ceiling aloft.

"Wow, just like the Anasazi..."

A bang and a muttered curse startled her from her awe. She peered down past the switchback staircase at an elderly man who slammed something shut beneath a draped tarp and kicked a food-safe algae bucket across the floor.

"And it's all my fault!" the old man cried savagely.

Sundew drew back, breath catching in her throat, then remembered that she was fifteen years old and not afraid of anything, especially an old man. She stood up and scowled. "What the heck are you doin' in here?"

The old man jumped, shoulders hunching up, then slowly turned sideways to look up at her.

“A girl? Out here?” he said, after clearing his throat a few times.

“Darn right a girl!” Sundew shouted, crossing her arms defiantly.

“How’d you find this place?” the old man croaked.

“I saw it all blurry on WorldView and came to check it out,”

Sundew sassed.

“WorldView...” the man rolled the app name over in his mouth a few times, eyes getting distant, then he seemed to remember where he was. “Who the heck are you?”

“I’m Sundew Greener and I’m lookin’ for the High Desert Banger. Who the heck are you?”

The old man’s mouth stayed open as he said, “Sundew Greener?”

“That’s what I said. You deaf?”

“Partially,” the man said, before muttering to himself again.

Sundew waited a full ten seconds, picking out “no, that can’t be” and “you should have checked” before growing impatient. “You gonna tell me who you are, or not?”

The man startled and squinted up at her again. “Well, I...you’re Sundew Greener, daughter of Albert Greener and Deborah Sundew?”

Sundew jerked her head back with a frown. “Yeah. How’d you know that?”

“Um...because I’m your grandpa.”

“What?!” Sundew’s arms exploded outward without her knowledge. She pounded down the stairs and glared into the man’s face, picking out eyebrows and a nose and a dimple that matched her dad’s. “I’ll be a hog-tied—you’re supposed to be dead!”

The old man, the world-famous Earl Greener, shrugged and said, “Yeah, I kind of gave that impression.”

“Well, what are you doing here?!” Sundew demanded.

“Um...leavin’?” Earl said.

“Why the heck are you doing that?!”

“Cause the world’s a boring pile of perfection without any more challenges and I made it that way!” Earl shouted back in a tone that sounded *very* familiar.

Sundew took a step back. “What?”

“I said, the world is too damn perfect now and there’s nothing challenging about living in it!” Earl shouted again, fingers arching like claws. The claws snapped into fists. “When I was young, the world was a seething ball of near total disaster. You couldn’t take two steps without helping it along to complete destruction. Let

loose one fart and the methane would tip the greenhouse effect into meltdown overdrive. Eat a sandwich and the carbon load of raising that chicken breast would seal the deal on climactic catastrophe. It was so bad we were building colony ships to find brave new worlds, working on portal technology to warp us to other dimensions, looking into genetic mutation to see if we could all become werewolf and live in the deep, deep sea. You name it, we were trying it. But when every American boarded the thirteen Suns of Liberty generation ships and rocketed towards the supposed paradise of New S. A. the Earth got a reprieve. A breather, as it were. And I got busy.”

“Making all the solar stuff?” Sundew ventured.

“Yes, the solar stuff! And the carbon sequestering stuff! And the rain forest reclamation stuff! And the ocean restoration stuff! All the stuff! I got so good at it, along with a bunch of other people, that pretty soon we ran out of stuff that needed making. So I made one last thing using all the stuff to prove to myself that there was no more stuff to make!”

Sundew scowled, then her eyes blew wide open in realization. “Greener Pastures!”

Her grandpa nodded an affirmative. “I built a completely contained community in the hottest, driest, most apocalyptic place on earth: New Mexico. And it turned out to be a sun-powered paradise. I mean, Greener Pastures has twenty pools! In the high desert! And buffets for miles!”

“I’ve heard,” Sundew said, rolling her eyes.

“And when it was finally all done and working just like I had planned, I realized there were no more challenges for me here on this planet.”

“So you went into space?”

“No! Nobody’s interested in going to space anymore! It’s too nice here! And you can’t run a space program on your own, turns out.”

Earl gestured to a half-finished rocket leaning precariously over a deactivated aquaponics tank.

“Oh,” Sundew said.

“So I retreated here, surrounded by all the things from my youth I had managed to collect before they were thrown into the behemoth recycling economy I helped create. And here I’ve sat, for, what, twenty years? Tinkering. Brooding. Waiting for some world catastrophe to come up that would need new and novel ideas to fix.

But there's nothing. We created paradise and it's boring as hell."

Sundew's face lit up, "That's what I've been saying!"

Earl shook his head then threw his hands up. "So, anyway, I've got a time table here and I don't like to be late, so skoodle-do." He shooed her away.

"Wait, what?! You're still leaving?"

"Of course! The world's still perfect, isn't it?"

Sundew scowled, not sure how to handle the hurt feeling that welled up at being ignored by her finally-found grandpa. After a couple of sulking seconds, she chose the teenager default: bitter anger. "Well, could you at least blow this place up when you go and make some proper noise!"

Her words brought her grandpa up short. "Wha—noise, did you say?"

"Yeah, noise! Nothin' in this world makes any noise anymore. It's all soft swishes and little hums. You can't even find two pieces of metal to bang together 'cause everything's 'factured for you out of biolastic. I want to hear this—" Sundew thumbed on the music player pinned to her shirt, eliciting a sick electric guitar riff at a sedate 50 decibels. "—but loud enough to make my ears bleed!"

Her grandpa appeared to be actually, physically chewing her words over, or possibly repeating them to himself with a closed mouth. When he'd finished, he glanced at the tarp next to them, then back at Sundew. "I really hate to miss deadlines...but...fine! Come with me."

Sundew dropped her arms and frowned as her grandpa led her to another pile of tarps which he began whipping off with abandon, sending great plumes of dust into the air. Sundew waved them away as a glorious clattering of metal on metal echoed about the place.

"What is that?" Sundew asked as a four-armed plus sign clanged to a stop on top of an old metal wheel rim.

"Huh? Oh, that's a tire iron. Tires used to go flat and you'd have to change them with that. You know, before I invented sponge tires."

Sundew grabbed the tire iron and yanked up.

"Holy sunrays, it's heavy!"

"Mmhm, solid metal."

Sundew hefted the tire iron aloft with two hands and concentrated on the exotic feel of it. Cool to the touch, smooth,

ridiculously heavy, and with a smell like nothing she'd ever experienced. "It smells...tangy."

"Metal's like that. Try licking it."

Sundew stuck out her tongue and took a hesitant lick. "Ew! It's gross!"

"But tangy, right?"

Sundew dropped the tire iron. It rebounded off the metal wheel rim with a noise so loud it nearly knocked her out.

"Sweet sunburn!" she cried, clamping her hands over her ears. Once the last echoes of it faded, she gently lifted one of the tire iron arms and let it fall on the wheel again.

Clang

"That is so cool."

"Ah, here it is." Earl lifted an object from the floor.

Sundew glanced up and exclaimed, "An electric guitar!" She grabbed it from her grandfather's hands and nearly dropped it. "Agh! Why's it so heavy?"

"That's just how they were," Earl said.

Sundew fiddled with the strap that hung from it, attempting to put it on a few times before finally getting it over her head and settling it onto her shoulder. It weighed down on her as she tilted the face of the guitar up to inspect it.

"This is the guitar from my poster!" she exclaimed.

Her grandpa narrowed his eyes and asked, "Does this poster have a dude in leather on it jamming out next to a huge amplifier? And does it have a tear down the middle of it?"

"Yes!" Sundew exclaimed, looking up at him.

"That was my poster." Her grandpa scratched his stomach and considered Sundew with a new look. "Hmpf."

Sundew stroked the strings. They twanged quietly out of key.

"Dang it! Where's all the noise?"

"Oh, right. You want noise." Her grandpa tugged on yet another tarp, revealing the ridiculously oversized amplifier in all its knobby glory.

"Holy eCigs!"

"Hold on, we got to hook it up to power."

Five minutes later her grandpa removed the tuner he'd shown her how to use, plugged the cord that had been coiled on top of the amplifier into the guitar, and stepped back.

"Okay, now put those fingers right where we practiced. Good.

I'm gonna turn it on, then you drag that pick down all the strings. Ready?"

Sundew swallowed and nodded, eyes as big as sunflowers. Her grandpa flipped a switch and a buzz of ambient noise crackled from the amplifier. Her grandpa turned a knob on top until it wouldn't turn anymore. The buzz increased elevenfold.

"Okay. Do it."

Sundew lifted her hand on high and ripped the triangle shaped pick across the strings.

A glorious wall of sound exploded over her, tingling her skin and ringing her ears. Her mouth dropped open in mind-blown ecstasy as the mingling notes rebounded about the cavern in a menagerie of loudness unlike anything she had ever experienced. She let them wash over her again and again until they finally faded to faint echoes eaten by the amplifier's background buzz. She slammed the pick across the strings again.

"This is AMAZING!" she shouted, unable to actually hear herself.

Her grandpa nodded, eyes holding a little more light than they had before. Sundew ran the pick back and forth over the strings as fast as she could, drenching the place in glorious loudness. She stopped and tried picking a few individual strings.

"I can show you a few songs later," Earl said, waving her to stop. "You didn't happen to have a poster with a pink-haired girl holding a boom box on her shoulder, did you?"

Sundew frowned, "Well, yeah. At least it looked like a box."

Earl rummaged under another tarp and hefted the boom box onto his shoulder.

"No, way!" Sundew said, inducing some ear-splitting feedback as she pulled the guitar off and leaned it against the amplifier. Earl clicked the amplifier off.

"It was your grandma's. It was old when she got it, but she carried that thing everywhere. Had it on her shoulder at one of my shows. It's how we met."

"Shows? What do ya' mean, shows?!" Sundew demanded.

"Righteous Riot shows, of course. I played lead guitar and sang."

Sundew thought back to the leather-clad punk on her poster; the poster with Righteous Riot scrawled across the top.

"That's you on that poster!" she cried.

"Well, yeah. And after your grandma became a groupie, we started putting her on our fliers. Everyone knew her 'cause of that

boom box and hair. She started her own band, eventually, and outsold us. Called it Boom Box.” Earl shook his head. “Marketing.”

“That doesn’t make any sense! You’re a nerd!” Sundew cried.

“True,” Earl said. “But you see, the state of the world was so bad I felt I had to rebel against it and at around sixteen I found out that adults hate electric guitar. It’s the only instrument you get yelled at for practicing too much, other than drums. So I figured I’d stick it to the world killers by shredding the ever living bejeezus out of that thing, which I did. But the world kept getting worse and I kept feeling worse, and then...”

“Then?” Sundew prompted.

“Well, one night some of our pyrotechnics lit a bone-dry former rain forest on fire and reduced it to cinders and I realized that shredding the guitar and screaming a whole bunch wasn’t actually solving anything. So I gave it all up and enrolled in college. This was right about the time the generation ships started rolling off the line and I wrapped up my studies just as they were loading up. Pretty much everyone thought the world was going to end immediately after they left, but it didn’t. So, I got to work.”

“Whoa. What did grandma do?”

“She kept touring and raising money for my projects. She was rolling in it and didn’t give a damn about anything but rocking the socks off of people, so she threw money at me whenever I gave her these puppy dog eyes.”

“Ew!”

“They looked better when I was younger. Anyway, we were quite the world sensation: the punk rocker and the uber-nerd. Until we broke up.”

“You broke up?!”

“Yeah, a little while after your dad was born. I was deep in my work, she was transitioning to her alt-pop phase, and we had a huge fight about who was going to take care of him. I kind of...failed as a father, I guess. Your grandma found him a great nanny, though, while she was rockin’ on the road.”

Sundew grimaced. “Ugh, no wonder my family life is so screwed up.”

Her grandpa shrugged. “At least I saved the planet.”

“I guess...”

“Anyway, it’s been real and it’s been fun, but it ain’t been real fun, so I’m going to get to the leaving.”

“What?! No! You said you’d teach me some songs!”

Her grandpa nodded. “Did your dad ever tell you I always keep my word?”

“Uh, no.”

“Yep, ’cause I don’t. The door’s up there.”

Her grandpa dropped his hand from pointing at the staircase and shuffled off. Sundew watched him go, seeing her own father as he got into a car and drove away, leaving her in the personal earth home she’d asked for in a fit of teenage rebellion against his disinterested parenting. He’d never come back. She’d called him once or twice, but after a few cursory questions he’d had to go attend to urgent Greener Enterprises business. Her mom wouldn’t even take her calls after Sundew had screamed that she loved her prized orchid collection more than her...and smashed about a dozen orchid pots.

Sundew shook herself out of the past to witness her grandpa flipping switches on a master control panel that killed power to different sections of the cavern. She clamped her jaw shut and stomped up to him.

“Now listen here, *grandpa*, I’m an orphan of your gol-darn success, dropped into a world of unrelenting boredom that you created, and I ain’t lettin’ you mosey on out of it before you teach me everything you know about makin’ noise and raisin’ hell!”

Her grandpa looked at her over his shoulder. “You sound just like your grandma.”

“Get back over there and show me what else you got under those tarps!”

“It’s like going back in time,” her grandpa said, shaking his head.

“Tarps!”

“Ugh, fine”

Sundew followed behind as her grandpa ripped tarps off of gen-zero solar glass, self-packing cricket protein habitats, deep well sterling engines, personal carbon converters, direct drive wind laundromats, until he finally arrived at the tarp he’d been standing by when she’d first come in.

“And now we’re right back where we started.”

Sundew frowned at it. “What is—”

Whoosh!

Earl pulled the tarp off, revealing the DayGlo green car with black hood strips from her final poster. Sundew’s jaw hit the floor.

“Wha—the-baa-baa...”

“The biggest ‘screw you’ I ever gave to the planet killers. Bought it with the paycheck I got from our first record deal. The gas guzzler tax cost as much as the car itself, but I didn’t care. The old people had handed us a turd sandwich and I decided to shove it right back into their face and grab the last of their caviar. This thing roars like it’s chewing up baby dolphins in every one of its eight cylinders. Stomping on the gas is like punching the planet in the face at seven-thousand revolutions per minute. Other than laying down a blistering guitar solo in front of a hundred-thousand people, I’ve never felt more alive than being behind the wheel of this asphalt-eating climate killer.”

Sundew just stared in awestruck wonder.

“So, if you don’t mind, I’m going to drive this beast until the gas runs dry and see if I can innovate my way out of whatever survival situation it strands me in,” Earl said.

Sundew nodded before realizing what she was agreeing to. “I mean, no! Not until I get to drive it.”

Earl pursed his lips and huffed out a breath. “Fine. You drive it, then you leave me alone.”

“Deal!”

* * *

Sundew gripped the huge steering wheel and took a deep breath. Her left leg shook, holding in what her grandpa had referred to as the “clutch pedal.” Her right foot pushed on the brake.

“Alright, just like I said. Keep the clutch in. Turn the key to start it—and enjoy it because I had to pay extra for that—then let the clutch out slowly while you give it some gas.”

Sundew shook her head at the insane complexity of it. “Why can’t they just have a go button and a stop button?”

“Go and stop button?! Does this look like some Power Wheels kiddie car to you?!” her grandpa shouted. “Just start the thing!”

Sundew blew an errant lock of hair from her face, licked her lips and turned the key.

Roaaaaaaarrrrrrrr!

The entire car rocked to one side as the archaic engine turned over, its spark plugs igniting the petroleum fuel her grandfather had synthesized. The roar settled into a rhythmic *wump wump wump wump* that Sundew felt through the faux leather seats and saw in the shaking gear shift.

“Great Soygravy! It’s like the heartbeat of some mythical beast!”

Her grandpa nodded. “Exactly. Every wump is an explosion that normally converts dead dinosaurs into planet-killing gasses, though the fuel I created doesn’t involve either of those. You can drive this thing till the end of time and the only pollutants coming out of it will be from your own back end. But nobody cares. It’s a relic of a bygone era, just like me, and there isn’t any use for it anymore.”

“I have a use for you! I mean, it!” Sundew clamped her mouth shut and blushed a deep red.

Her grandpa frowned at her in the awkward, rumbling silence that ensued, looking as if the thought of being needed by another person rather than an entire society had never occurred to him before. “Um...okay,” he said finally. “Why don’t you let that clutch out slowly and give it a little gas.”

Sundew nodded rapidly, yanked her foot off the clutch pedal, and mashed the gas pedal to the floor.

“Sweet sun-drenched succotash!” her grandpa cried as the back wheels broke loose in the gravel outside the hideout’s hidden side entrance.

An exhilarating flush washed the embarrassment from Sundew’s face as the back end of the car spun around, kicking up a pall of dust that soon engulfed them. The engine roar blotted out the pinging gravel, her grandpa’s screeching, and the last remaining shreds of her good sense. She felt alive in a way she had never imagined possible. The primal bashing of mechanical parts driven by thousands of explosions only feet away from her; the shuddering of the solid metal frame that held it and her together like an archaic nightmare; the grinding of the reinforced rubber tires in the grit on the sand-blown roadway beneath her—all of it spoke to her like a long-lost friend. This was not just a vehicle from the ancient past that fulfilled her loudness dream. This was her, in automotive form: loud, brash, impossible to ignore; not fading off into the sunset like an unheard whisper.

She let up on the gas pedal a bit. The tires slowed, gained traction, and launched them forward.

By some miracle that she’d somehow foreseen, they were facing down the road she’d rode in on, blasting past her forgotten sailboard.

“Washout!” her grandpa shouted, pointing ahead.

Sundew yanked the wheel sideways and back, rolling over the

rut in the road at its narrowest point.

“Redline!” her grandpa shouted, pointing at the needle that touched the red arc on the gauge labeled RPM.

Sundew slammed in the clutch, yanked the shifter back into the spot labeled “2” and let the clutch out.

“Jamaican!”

Sundew slammed both feet on the brake, sending the car into a sideways slide that ended a few feet from Cam, who held up his hand against the road spray.

Sundew looked out her open window at her laid-back guardian, an errant lock of hair falling into her face as the car’s engine stalled out with a shudder.

“Hi, Cam.”

Cam waved away the dust and stepped off his sailboard, grimacing at the smell of burned synthetic petrol and heated rubber.

“Heya, Sundew. What’s happenin’?”

“I’m driving my grandpa’s old school muscle car as fast as I can.”

Cam bent down to look in at her grandpa, who gripped his chest and gave a single, feeble nod.

“Ah, Earl Greener,” Cam said. “You dead, no?”

“Not yet, though I feel a lot closer now,” her grandpa replied, fanning himself.

“Whatcha doin’ out here?” Sundew asked Cam with a frown.

“Mm. Got worried ’bout you. Came lookin’.” Cam waved his plascreen at her. It showed the stationary beacon from her windboard on WorldView and also search results for “Where to make noise in New Mexico.”

Warmth blossomed in Sundew’s chest. “You came to check on me?”

“Ya, but it looks like ya’ fine,” he said with a raised eyebrow and nod toward the car.

“I’m more than fine, I’m livin’ it!” Sundew said. “Get in!”

Cam took a step back. “That sounded like it was ’bout to explode. I thought a storm was comin’ when I heard it.”

“Exactly! Isn’t it great?”

Cam started to shake his head but her grandpa’s door suddenly popped open.

“I’ll get in the back, you ride up front,” her grandpa said as he pulled himself out. He tilted his seat forward and half-crawled half-

fell into the tiny back seat, maneuvering the guitar and boom box out of his way as he did.

“Come on in!” Sundew exclaimed.

“My windboard...” Cam said.

“No room!” Sundew gesture to the amplifier that jutted out from under the tied-down trunk lid. “We’ll get it later.”

Cam swallowed but climbed in.

“So, where to?” Sundew asked, pushing in the clutch and turning the key. The car roared to life.

Cam fastened his seatbelt at her grandpa’s urging and gripped his armrest tightly. “Um, I guess I wouldn’t mind seein’ my mum.”

“Don’t tell me, she’s at Greener Pastures, right?” Sundew asked.

“Ya, it’s real nice.”

Sundew turned in her seat and raised an eyebrow at her grandpa. “What do you say, grandpa? Want to check the old place out?”

Her grandpa let out an extravagant sigh and said, “Why not? Maybe we can find your grandmother and start a new band. Call it the Meener Greeners or something.”

“That name is terrible,” Cam said, matter-of-factly.

Sundew agreed, but kept quiet. “Yeah, now you’re talkin’! We can electrify Cam’s guitar!”

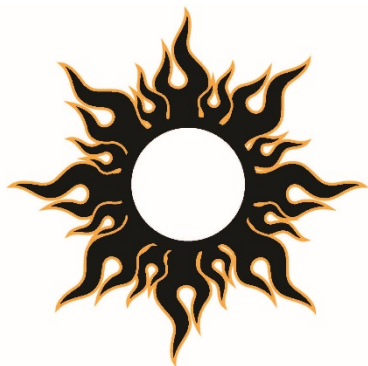
“No messing with my island sound!” Cam shouted as Sundew dumped the clutch and floored the gas.

Her grandpa hit the play button on her grandma’s boombox, activating the custom-printed cassette tape of Boom Box’s first album, *Outsell the Man*, while Sundew let out a war whoop against silence.

Life was loud.

Life wasn’t lonesome.

Life was good.



TRIAL BY FIRE

by Lauren C. Teffeau

The to-do list felt like it was a mile long for all the progress Finn and I were making. By mid-morning, we'd only completed a fraction of our outdoor chores. At least the brisk air woke me better than my parents' lecture as they went over the house rules before they left. As if they'd changed from the last time they took the truck into Española to mail out the latest orders and supply up, leaving me and my little brother behind. Mom had already called once to check on us.

Was it too much for them to trust we wouldn't burn the house down while they were gone?

"Colton, when will Mom and Dad be back?" Finn dragged his feet through the gravel, creating two long tracks we'd just have to rake smooth once we finished picking up sticks. After a windy night, they littered the flagstone patio and the metal fire shield housing running along the east side of the house. But at least it kept us moving, staving off the chill New Mexican air.

"Dunno." I added another armful of branches to the debris pile. "They probably haven't even gotten down the mountain yet."

Finn scuffed his heel through the gravel again, the noise setting my teeth on edge. Our cattle dog Maisy danced around him. She was rocking a lot more gray in her muzzle these days but never

tired of following Finn around everywhere. He picked up a dead branch from the pile and held it out like a sword. En garde. Just like the conquistadors that conquered this land back in the day, looking for gold.

“You going to help me or not?”

“But we’ll never be able to finish it all.”

“Doesn’t matter,” I said. “After last time...” The fact Mom and Dad were even leaving us home alone again was a miracle.

Finn kicked a rock into the trees. Doing my best to ignore the little punk, I took the list of chores out of my pocket. I waved it at Finn, a red cape in front of a bullheaded brother. “Next up, compost.” I steered him toward the barn to get the tools we’d need.

Finn dug in his heels, scattering more gravel. “I don’t want to.”

“You saw the list.” Dad wanted us too busy to get in trouble this time around.

“But the barn...” Finn scowled.

In that moment, the five-year age difference between us felt as insurmountable as crossing the nearby gorge. “It’s not *that* bad.”

Though it was true the barn was a crime scene waiting to happen, chockfull of rusted tools, moldering wood, and animal droppings. Dad had grand plans to clean out the old adobe structure and turn it into a greenhouse with a separate catchment system, but right now it was only incubating tetanus and plague.

“You can weed the raised garden beds instead,” I offered. “Descal the irrigation nozzles?”

“No way.”

Predictable. Finn wasn’t going to do anything more than me and less if he could get away with it.

“Then we’ll go together, all right?”

Finn stared at me, head cocked, jaw outthrust, no doubt planning to argue further, but he finally relented. I pushed open the old barn doors, sun-damaged and swarming with splinters. Maisy trotted after us, eager to poke her nose into every corner and watch the crawlies scuttle out of sight.

The barn was the oldest thing on the ramshackle ranching property and a far cry from the Austin urban bungalow we’d grown up in. But Mom and Dad had fallen in love with the potential of the

place. They'd gotten out before the tech crash and wanted to give back by transforming the homestead into a sustainable stronghold for our family that would last generations. And with the main house nearly done and their new business selling Luminescent Lanterns—aquariums by day, bioluminescence-powered lamps at night—up and running, the barn would no doubt be next.

“Watch your step.” The last thing we needed was one of us stepping on an old nail or rusted saw blade on our way to the tool rack. We grabbed the rake and shovel and returned outside.

The compost pile was a three-by-three-foot patch out back just before the partially overrun xeriscaping turned rather abruptly into a wall of trees heralding the boundary to Carson National Forest. After liquidating our life in Texas, Mom was desperate for trees and mountain views. Dad liked the cooler temps and being closer to his brother in Colorado. With a clean slate, they were able to build an off-the-grid home that was a better hedge against climate change than anything in Texas, putting us at far remove from deadly heat waves and water boil advisories and public areas overrun with the displaced and unhoused. In exchange, me and Finn got a forty-minute-long bus ride to school on winding mountain roads, but we could live outside in a way that had been impossible before.

A big change but worth it even if it was sometimes accompanied by the unmistakable stench of decomposing fruit and vegetable scraps. “Get the compost bucket from the house,” I told Finn.

“Why do *I* have to go?”

“Because I said so.” I'd already had to pull rank, and it wasn't even noon. “And don't forget the coffee grounds,” I called after him.

Maisy tracked him to the house but relaxed once he disappeared inside, for once not tripping on his heels. She found a sun-warmed paver and lay down with a contented sigh.

I got to work, steeling myself against the sight of the worms and beetles squirming through the dark, spongy compost. My throat itched by the time I was done. A reaction to one of the plants out here maybe. Distant smoke gave the air an ashy tang. Probably the Apodacas, our neighbors to the east, getting ready for a day of mesquite-fired barbecue.

What was taking Finn so long? We still needed to water the pile from a hose connected to one of the rain barrels.

Movement in the trees caught my eye. A brown-and-tan blur, coyote-shaped, slinking through the underbrush. Each spring, Dad always arranged for the goats of a cousin of a neighbor to come to our property and eat down the growth so our ten acres of mixed conifer and aspen would be manageable come fire season, but it had already grown back, making it hard to pick out anything. Even the forest was eerily quiet, without magpie chatter or trilling songbirds. Only the wind breathed through the trees. Strange.

Coyotes weren't around much during the day, but they *could* get rabies... Maybe that explained the odd behavior. Maisy still drowsed nearby, unconcerned. She'd be barking up a fuss if something got close.

"Colton!" Finn's voice shattered the silence. "Come here!"

What now? I headed inside, Maisy right behind. Finn met me at the door and waved me toward the landline in the kitchen. "*Dad* wants to talk to you."

Dad? He usually left the check-ins to Mom. I dug my cellphone out of my pocket, but it didn't show any missed calls. 5G-coverage was spotty up here on the best of days. I hurried down the hall, the living wall of plants that scrubbed our air clean rustling in my wake. "Hello?" I said once I got ahold of the handle set.

"There you are." Dad's voice was uncharacteristically harsh. It took a moment to process the shift from the affable if under-caffeinated man who'd left the house that morning. "The road's been closed going up to the house. A fire started outside of Trampas, and the wind's been driving it north toward Peñasco." Where we lived.

My brain stuttered over the word *fire*. "What?"

"We're not..." Dad's voice cracked or maybe it was just the connection. "We're not going to get up there in time."

Panic slammed into me. "But—"

Finn had snatched up his rocketship from the toy hamper full of stuff he hadn't bothered to touch in weeks. "Zzzzzaaaap." He buzzed me with it as he careened around the room, nearly taking out the ten-year-old aloe vera plant by the window that was only a few months older than he was.

"Knock it *off*, Finn."

He threw the rocketship onto the floor with a growl. The battery compartment flew open, and the electrolyte power pack skittered under the oven.

"Listen," Dad was saying. "You need to raise the fire shield. Panel's on the east side of the house. Remember when we installed it?"

A couple years ago right after we moved, I helped Dad and Manuel, one of our neighbors, set it up. "Yeah, but I've never—"

"Doesn't matter. Raise the shield, then get yourselves to the fire lock."

Finn tugged on my arm, pulling me to the living room. "Colton."

The phone cord kept me tethered to the doorway. I wriggled out of his grasp. "Not *now*."

"But look."

I squinted out the windows overlooking the valley. Past trees and scrub, the hint of the Sangre de Cristos in the distance. Fall up here was full of rugged beauty as the yellowing gold of the aspen trees fought against the stalwart pines, creating a joy of contrasting color. But the mountain view Mom loved so much was barely distinguishable now thanks to the haze that had descended in the short time we'd been inside. That definitely wasn't from the neighbor's firepit.

"Colton, you still with me?"

"Yeah, it's just..." A lot, all at once.

"You can do this," Dad said, but all I heard was, "You've got to."

"I understand." And I did, in theory. But that wasn't particularly reassuring in the face of a real crisis.

When I hung up, Finn was waiting to pounce. "Well? What did he say?"

"We've got to get moving." All the things you're supposed to do in an emergency hovered in my mind, just out of reach. The rules Mom and Dad had drilled into me, all the preparations...

"Tell me."

Ugh. My thoughts scattered at Finn's voice. He'd picked up on Dad's anxiety but clearly hadn't been told anything else, leaving me to do the heavy lifting. "A wildfire's headed this way." I pushed Finn toward the hall closet. "Get the emergency kit."

That would keep him out of my way while I checked over the fire shield. Hopefully.

But I just stood there. The blower on the heat pump hummed in

the background, offsetting the morning chill. Water trickled as the irrigation lines built into the living wall fed the perennials and herbs anchored there. The pumps on the salt-water aquariums gurgled from the living room. All perfectly normal. All of it up to me to protect. That got me moving again.

Outside, the smoke was now undeniable, curling over the tops of the trees like mist escaping from the gates of hell. I rounded the corner of the house to where the shield activation panel was mounted to the exterior. The salesman had tried to up-sell Dad and go for the glossy, wi-fi enabled one that could be triggered remotely, but the signal out here was still spotty despite the local investment in rural broadband. While Dad was willing to shell out for the new technology and take advantage of the associated tax rebate, he didn't dare put all his trust into sensors that theoretically could deploy the shield. The things were one-use only and expensive. We couldn't afford a false alarm.

Today was different. I threw the switch to open the shield housing. Nothing happened. I bit my lip. There was power to the panel, so what could—

Finn showed up with a duffle bag full of rations, a printout of important phone numbers, a beat-up iPad, and a set of clothes for each family member. For once he'd dropped his posturing, magnifying his wide hazel eyes and pale cheeks. I tucked the straps higher on his shoulder. "Get the ATV ready."

He shook his head. "Can't."

I nearly lost it. "Do I have to do *everything* around here? Come on." I marched him over to the barn. The ATV was there, all right, but on blocks. Then I remembered. Dad wanted to replace the fuel lines with an electric conversion kit, and he still wasn't done.

"See?" Finn said triumphantly.

Resisting the urge to throttle him, I thought for a moment while Maisy paced around, ears pricked forward at all the unusual activity. "Then get your bike and get to the fire lock." Ever since we moved here, Mom had drilled us on the location of the nearest shelter. It was maybe two miles away. Better for Finn to get a head start. Surely he could handle that much.

"But what about Maisy?"

That stopped me. What about her? "Get her leash. She'll follow you. She always follows you. This'll be no different."

“But—”

“Look, I’ve got to get the shield up no matter what.” I didn’t know how long it would take to get working. If I couldn’t do it... I forced that unhelpful thought away. “Just go. I’ll catch up with you.”

His jaw jutted forward with all too familiar belligerence. We couldn’t afford another fight, not today.

“Finn, for once in your life, just *do* what I say.” I stared him down, my breathing heavy, my pulse frantic. At his doubtful look, I added, “I’ll be right behind you. Promise.”

He finally got moving, even if he wasn’t happy about it.

I raced back to the fire shield, pushing away the image of Finn’s reproachful look with each step. Under different circumstances, he’d be raring to go somewhere without me watching his every move. He’d be fine. I shook off my guilty conscience by the time I reached the panel.

Holding my breath, I threw the switch again. This time, I could just make out a clunky chugging sound. *Something* had to be blocking the fire shield housing. I approached the long, narrow metal box running the length of the house. I’d cleared the surface myself earlier, but... There. A rock wedged the doors closed. Could it be that simple? I hardly dared to hope as I tossed it aside.

With that, the housing ground open with a mechanical whine, revealing the fire shield rolled up inside like a giant pool cover. Tension spilled out of me like a deflating balloon, but I couldn’t relax. Not yet.

I hurried back to the control panel and jabbed the big red button to activate the shield. That initialized the snapping release of the metal arms on either end of the housing, deploying the shield overhead like it was a parachute made of spider’s silk. It glimmered wetly as the fabric stiffened over the hard lines of the house, the solar panels that studded the roof, like a shroud. The material was comprised of teeny-tiny tubular channels full of some kind of fire suppression goo that would activate to protect the structure if, God forbid, the blaze got too close.

By the time the shield was in place, I was sweating and my lungs burned. My stomach lurched unhappily. I’d done what Dad told me, but it didn’t feel nearly enough. Not with practically

everything we owned trapped inside what looked like a high-tech version of a fumigation tent. But I had to go.

I gave the house one last look before grabbing my bike. Finn's bike was already gone, Maisy too. Good to know Finn *could* listen when he put his mind to it.

I hurtled down the road after them. The smoke and ash in the air turned everything sooty. A scene out of a horror movie with evil encroaching on all sides. I wrenched the neck of my t-shirt over my nose and mouth. No wonder the road had been closed if the fire was moving this fast.

The fire shield must have taken longer than I thought to get working since I still hadn't caught up to Finn and Maisy by the time I reached the fire lock. Half-submerged in the ground, it was a cross between a war bunker and a hobbit house. The shelters had been installed around the southwest years ago to protect people and allow them to return home sooner to assess damage from the fast-moving fires that still raged no matter the strides taken to mitigate the worst effects of climate change. An old truck and a newer EV were parked alongside the road, tarped with fire blankets.

Manuel was posted at the door to the fire lock. "Colton, thank God!"

"You've seen my brother? I sent him on ahead."

"No, but I just got here myself. I'm sure he's down below. Come on. This fire's moving fast." He waved me inside.

I barely had the presence of mind to get off my bike and carry it down the narrow stairwell instead of careening down it headfirst like it was just an extension of the bike trails crisscrossing the area. My pedals scraped against the metal paneling, but the screech barely registered over the roar of blood in my ears.

At the bottom, a man I didn't recognize took my bike and set it against the wall near two cat carriers, their occupants meowing piteously. Roughly a dozen people had taken refuge in the fire lock. I scanned the room, looking for Finn.

Ms. García, one of the neighbors I *did* recognize, came over, blocking my view. Her son rode the bus to school with us last year. He'd taken first place in the science fair for developing a new way to treat wastewater in rural areas and gotten a full ride to New Mexico Tech. When he told the other kids to stop harassing us for being from Texas, they'd listened, and some of that same kindness was there in Mrs. García's dark brown eyes as she looked me over.

“We were worried you weren’t going to make it.”

Me too, now that I had a chance to think about it. The shelter’s air was slick, noticeably cooler than above. The door to the fire lock clanged shut, the sound rattling down the stairs and through the rest of the shelter. One of the dogs shied at the sound and crept underneath a folding table.

“Your parents?” she asked.

“They took the truck into town this morning,” I said distractedly. I craned my neck, trying to look around her. “Have you seen Finn?”

Stress had replaced the smoke in the air. I hadn’t allowed myself to feel anything, and now, each detail rushed into me. The nervous looks, the lowered voices...even the pitbull under the table looked miserable. I wondered how Maisy was faring with the other dogs. A group of them were aggressively sniffing each other, but Maisy wasn’t among them.

A strange coldness ran down my spine with the subtlety of a nerve block.

Ms. García’s brows furrowed. “He’s not with you?” She glanced up the stairwell as if expecting him to be bringing up the rear.

No no no. This could *not* be happening. “He should be here already.” I blinked rapidly, furiously replaying my ride to the fire lock over in my head. There’d been no sign of him at home or on the road. If he had doubled-back, I should have seen him.

Shit. Adrenaline and fear surged through me as I sprinted up the stairs. Manuel was still stationed in front of the door, a hard look on his face. “I need to go back out there. Finn—”

“No way.” Behind Manuel, the ceramic glass porthole flickered with flames. The trees on the other side of the road were now burning. So close. “Not until the fire passes.”

His voice was heavy with the pronouncement, but how could he understand? I’d promised Mom and Dad I’d handle things and I’d already messed up. My stomach heaved. Finn, out there all by himself—Maisy, too—and it was all my fault. I bit my lip and tasted blood. I had to fix this somehow. I was the one who forced him to go on ahead, alone, and—

A trio of concussive pops sounded, much like artillery fire from one of my video games.

“Hear that? Those were the piñons on the ridge,” Manuel said.

“Do you have any idea how hot it has to be for them to explode like that? There’s no way anyone’s going out now.”

My ears buzzed. My pulse kicked up. I nodded like I understood, then I shoved him, hard. Out of the way. I wrenched the door handle as flames leapt against the glass like gritty orange water.

Hands grabbed me from behind; someone else had come up the stairs. No. Didn’t they understand? How could I possibly stay at the shelter if Finn was out there somewhere? I swung my fists wildly, connecting with the wall, someone’s side. The air punched out of my chest when I landed on the concrete floor at the base of the stairs.

Concerned faces loomed over me. Someone helped me to sit up. Others reached out, patting my head, my shoulders, as if that could magically make everything better.

But not this.

My breath sawed in my ears. It was too much. Finn, the fire... How could I ever look Mom and Dad in the face again? Bile burned the back of my throat. My chest pounded with shame and fear. Darkness threatened at the edges of my vision. I had to get away.

If anything happened to my brother...

Arms tightened around me. To hold me back? No, a hug. That was what broke me.

Panic spiraled. Everyone turned wavy, talking like they were underwater. Then, for a long time, there was nothing at all.

* * *

Red chile and meat simmered low and slow scented the air. Was Mom making carne adovada again? When we first moved from Texas she’d made it her mission to learn New Mexican cuisine. As if that would keep the locals from resenting us for buying up what they couldn’t afford to hold onto. Luckily most folks didn’t care about all that once they got to know us. Ever since, Mom made tamales and posole over Christmas break, adovada and corn tortillas from scratch for every other occasion. But it wasn’t a holiday.

Then I remembered. My throat closed up with smoke even though the fire lock supposedly had enough air to last us a week. Someone had put me on one of the camp cots in the corner with a tattered knock-off Pendleton blanket draped over me like a shroud. The fire shield. What good was protecting our house if Finn had been stranded out there? My fear, my *failure*, wriggled around in

my head like worms through compost. My promises no better than ash.

Camp chairs and a couple of second-hand couches softened the shelter's metal walls and concrete floors. Air plants dangled from the ceiling in planters made from beer bottles. I thought of Mom and Dad's Luminescent Lanterns. They'd just gotten a consignment deal to sell them in stores and now this. So many of our neighbors were in the same boat, but at least all their loved ones were accounted for. A wave of helplessness washed over me.

I stood, and a current went through the common area as people became aware I was awake. Voices hushed, heads turned my way, everyone waiting to see what I'd do next.

"How are you feeling?" Mrs. García ventured.

Belatedly, I felt for the tender spot where I'd hit the floor. It hurt, but then again, I deserved it.

"I'll live," I said hoarsely. Finn on the other hand... I swallowed, trying to get rid of the metallic taste in my mouth. I searched out Manuel. "When can I leave?"

He abandoned the people he'd been speaking with and walked over. I braced myself for his anger, but he only projected a controlled sort of calm as he spoke. "It's still burning hot out there. Forest service says we still have a few hours to go."

Such an impossible amount of time. I felt sick with it.

"We put out an alert about your brother," he continued. "Fire command, forest service, and the other shelters in the area."

My chest squeezed. It wasn't nearly enough. At that point, I wasn't sure what would be.

"Eat something. The Seguras stocked the freezer with tamales. Then we'll handle the rest. Together." He sought out my gaze and gave me a nod. "That's a promise, eh."

I started shaking then. Mrs. García took my hand and guided me to one of the folding chairs at a card table pushed against the wall. A massive half-started jigsaw puzzle lay scattered across the puckered plastic top. A high desert scene full of sunlight and succulents. No smoke, no charred sagebrush or prickly pear, nothing to suggest how easily it could all burn away.

My vision wavered. Someone had started grouping the pieces together by color. Brilliant blue sky, purple wildflowers, and every shade of brown you could think of plus the ones that only became obvious in comparison to the others. I stared at the puzzle for a

long moment, willing the tears back, then started sorting if only to keep my hands from trembling. A 3D printer whirled on the counter as it made ventilators and water filters.

Mrs. García brought over a tamale plate with a side of tinned pinto beans. She left it at my elbow. “Feeling better?”

How could I possibly answer that? “Fine.”

But she didn’t leave me alone until I fitted my first piece into the puzzle.

* * *

Three knocks on the exterior door of the fire lock jarred us out of the stupor that had descended after everyone had eaten something and the small talk petered out, leaving us alone with our private anxieties. Another set of knocks had me on my feet, the puzzle forgotten. For better or worse, the limbo I’d been trapped in was now over. I grabbed my bike and hurried up the stairs.

With a shock, I realized it was early morning. Anemic sunlight struggled against an ashy haze. Drones whizzed overhead, mapping the destruction. My stomach hollowed out at seeing the forest, unrecognizable from what it was hours ago. The odds of Finn surviving out here kindled another blaze of panic, one I wouldn’t be able to extinguish until I found my brother.

Manuel had beaten me to the top and was already talking with a firefighter and a forest ranger. I didn’t care what they were discussing—nothing was as important as Finn. Manuel waved me over when he saw me coming. “This is the young man I was talking about.”

“I’ve got to go *now*.”

“Not on that thing.” He pointed me to the firefighter. “She’ll take you in one of the ATVs, all right?” He tossed me one of the printed ventilators. “We’ll follow as soon as we’re able, eh?” My hands tightened reflexively over the handlebars as he moved to take my bike, then I let go, allowing him to lead it away and lean it against the exterior of the fire lock, looking sooty but otherwise untouched by all the action.

The firefighter was in her mid-thirties with a dirty blonde crew cut. “I’m Kate. You’re with me.” She fitted her own breathing apparatus to her face and gestured for me to do the same. The ventilator looked like a plastic cup from a jock strap and fit about as well over my nose and face. She made a few adjustments, which improved things considerably, and waved me over to the ATV, her

turnout jacket crinkling with each step. I clambered up beside her. "Where do you think your brother might have gone?" She sounded robotic through the mask.

My posture collapsed as though made of nothing more than wet paper. "He was supposed to come here," I said in a small voice.

"Do you think he could have gotten turned around?"

Lost his way or crashed somewhere? I shook my head. "We've ridden our bikes out here for years."

She got the ATV in gear. "And there was a dog, too, right? Maybe it got spooked and your brother chased after it."

Maisy wouldn't have taken off like that coyote to avoid the fire. She'd be glued to Finn's side at the first sign of danger. "No," I said. "They're inseparable."

"Well, keep your eyes peeled as we retrace your steps."

We drove up the road to our place, the forest a charred corpse, the spindly, still-smoking trees now nothing more than skeletal remains. A few still stood tall, even if their lower limbs had been singed. Much of the undergrowth had burned away, leaving black earth and naked stone. So much destruction, so quickly. How could Finn have survived it?

I numbly pointed out the driveway to Kate. She leaned over. "This area got dowsed by one of the airtankers."

That explained why things looked and smelled marginally better up here. Though the barn was toast. A couple trees in the immediate vicinity were still smoking, but the rest didn't seem so bad off. But still no sign of my brother. Or his bike. Or Maisy. Even the sight of our house, still standing, still shielded, couldn't alleviate just how badly I'd fucked up.

"Finn! Finn?" I screamed, but only smoldering forest answered. Ominous, inexorable, overwhelming. I'd never felt more helpless.

The firefighter pointed to the house. "Is there a chance he might have turned back for home? Maybe he forgot something, and you just missed each other."

I bit my lip. Was it possible? I'd been so preoccupied with getting the fire shield working, maybe I missed something. "I don't know."

Kate grunted. "We'd better make sure then."

She tossed me a pair of work gloves and grabbed her mattock. She started hacking at the fabric shrouding the front door. The fire

had burned hot enough to activate the fire suppression foam inside the shield. The result was a hardened shell that broke into shards when struck. I stepped up next to her, breaking off jagged hunks of the material.

Inside, the house was as we left it, scented of basil, thyme, honeysuckle. The battery backup for the solar panels had kept things running because I could hear the aquarium burbling away. The plankton and dinoflagelettes housed there provided enough illumination to combat the shield-darkened windows so I could make out the comfortably messy lines of the living room. Mom's skeins of recycled yarn hung off the arm of the couch she'd reupholstered herself. Dad's metalworking tools to shape Luminescent Lanterns cluttered the sideboard. My and Finn's soccer gear was still lumped into a corner like cadaver bags. Fire suppression foam poured through a crack in one of the windowpanes and oozed down the wall like alien ectoplasm, but the house was intact.

That was not nothing even though it felt like it.

"Finn?"

Kate shouldered past me, headed for the kitchen.

"Finn?" I called out again.

Maisy's answering whimper drew me in the opposite direction to the family room. Finn had collapsed there with Mom and Dad's first working prototype glowing down on his wan face. Maisy lay next to him, her tail thumping against the floorboards but lacking her usual vigor. I couldn't believe it. I'd agonized over what we'd find, and now that they were in front of me, none of it felt real.

"In here!" My voice cracked.

Kate rushed in and scooped Finn into her arms before I could even decide what to do. "We've got to get them outside."

That I could handle. I picked up Maisy and followed after her.

Kate laid Finn down on the ground. I set Maisy beside him. "He's alive, but he needs oxygen." She went back to the ATV to get a portable O2 unit from the vehicle's cargo compartment. Once she'd looped a canula around Finn's head, she leaned back on her heels. "Any longer, they would have suffocated in there."

I couldn't suppress my shudder. I'd had no idea that could happen. Then again, I'd had no idea Finn and Maisy had turned back for home. Stupid. "He's going to be okay?"

"Not a doctor, but given my limited medical training I'd say

yes.”

Maisy had already perked up a bit now that she was outside. A good sign for both of them, I hoped.

Kate’s radio squelched. “Yes, we found him alive. Over.”

I knelt beside Finn and took his hand. Slightly sticky with God-knew-what per usual, but warm. Alive. He stirred, breathing deeply before sputtering into a cough.

“Colton?” His bleary eyes slowly focused on my face.

I could only nod. “What were you thinking?” I couldn’t keep the anger out of my voice. But it wasn’t all for him. Some—well, most of it—was aimed at me, but I didn’t know how to explain that. “How...”

“I was getting on my bike when the go-bag slipped and I lost my balance. I stepped on Maisy’s paw, and she started limping—” And I could envision it all, the whole unbearable chain of events that led us here. “Maisy wasn’t going to be able to keep up,” Finn continued. “I knew it. I thought if I got her inside, she’d be okay.” Some of his belligerence returned. “And she was.”

I shook my head in disbelief. We must have just missed each other. “But your bike was gone.”

“I rested it alongside the house.” And when I activated the shield, it shrouded the bike from view and trapped both of them inside, me none the wiser.

“Why didn’t you say anything?” Why didn’t *I* think to check inside before raising the shield?

He lifted a shoulder. “There wasn’t time.”

“Do you have any—” A sob threatened, and I shut my mouth tightly. He was alive. He was okay. Maisy, too.

That mattered even if I couldn’t quite believe how things had turned out.

Horns honked, heralding a pickup truck driven by Manuel, my bike sliding around with the rest of the supplies in the flatbed. He unloaded picnic tables and chairs from the truck while his wife set up a camp stove to get some green chile stew going. He caught my gaze. “This area faired better than a lot of places so we’re going to make this our command center to coordinate the clean-up.” He grinned. “Besides, someone has to keep an eye on you two for your parents, eh?”

The fire may have moved out of the area, but it was still burning north and east of us. That meant everyone would be

gathering here to get supplies, to plan relief efforts, to feel less alone as we processed what happened. And I wanted to help. I didn't want anyone to feel a fraction of what I did when I realized Finn hadn't made it to the fire lock.

Folks from the shelter arrived at our place over the next couple of hours after checking on their own homes and livestock, bringing food and gear to help with the recovery efforts. Forest rangers and firefighters stopped by for a hot meal and to top off their supplies. Maisy danced around the feet of everyone, her paw seemingly no worse for wear, a doggy grin on her face. The atmosphere was almost festive as everyone worked together to match people with equipment or other tasks that needed done. When word came the firebreak had held around the town of Peñasco and containment was at 70%, cheers broke out.

Manuel helped me break down the shield so it was easier to get into the house, since our bio-toilets were getting a workout from all the visitors. The shards needed to be baled up and taken to the dump, but supposedly any residue could be hosed off and presented no danger to the soil or groundwater. A miracle considering what it had been up against.

"What happens next?" I asked Manuel while we worked.

He squinted in thought, the ruddy skin at the corners of his eyes crinkling. "We rebuild like we always do. After the big one a few years back, way before your family moved here, the state partnered with the Pueblos and the heritage farming communities up here to establish a seed bank to preserve New Mexico's biodiversity. We'll work with them and the forest service to undo the damage."

"But some of those trees take ages to grow." Much longer than either of our lifetimes. Loss at that magnitude was dizzying.

Manuel shrugged. "My family's lived in northern New Mexico for generations. No fire season is the same, but with a little luck, and a lot of work on our part, we'll be ready for the next one. Besides, it won't just be us. Your dad uses José's goats, yes?" I nodded. "Well, the rest of us do, too. Did you know their hooves are perfect for pushing seeds into the ground at just the right depth?"

"Really? That seems so..." Old-fashioned, but I didn't dare say that to him.

Manuel just winked. "Sometimes the old ways are the best ways."

So long as we knew the difference to help us navigate the cycle of burning and rebuilding that was baked into the region, no matter the challenges climate change had wrought. Just like a massive jigsaw puzzle needing many different people, and apparently goats, to bring the image of the future we were all working towards into focus. We'd keep adapting and adjusting to preserve this area, investing in both the tools and the community members to make that possible. And my family was a part of that cycle now.

When Mom and Dad finally pulled up, the electric 4x4 skidded to a halt, zinging gravel in all directions. Mom leapt out of the cab first, her eyes ringed red from crying, and slammed into me with a hug. I inhaled her scent, suddenly desperate for something unsullied by smoke. She released me and started fussing over Finn.

Dad came over and took me by the shoulders, as if he couldn't quite believe I was there. He turned toward the house. "Looks like the fire didn't burn long. We sure lucked out somehow."

I winced as I faced him. "Dad..." I had to tell him how I messed up everything, but I didn't know where to begin.

His face wavered and he swallowed hard. Somehow, he already knew. He must have been in touch with Manuel or the rangers and knew Finn hadn't been accounted for. Hot shame blazed through me. Dad gave me one last squeeze before his hands fell to the side. "The responsibility never should have been yours alone, Colton. We're all together now. That's what matters."

He headed toward the barn. All that was left was the old adobe brick foundation and some charred vigas. Finn joined us in our contemplation of the wreckage.

"Is the greenhouse still on?" I asked uncertainly.

Dad surprised me with a grin. "You bet. After the fire cleared out the place, it'd be a waste to not make use of such a gift."

I exchanged a look with Finn. His brow furrowed as he examined the adobe. Bits of charred straw sticking out of the mud brick was the only indication of what transpired here. A slate wiped clean. Well, almost.

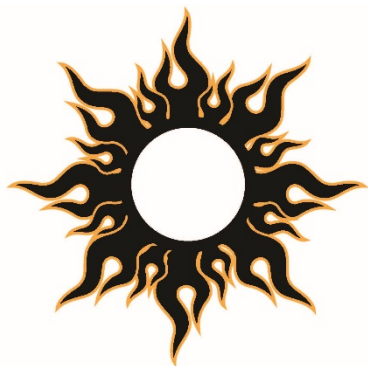
"Of course, I expect you boys to help." Not just with our barn, but Manuel's coyote fence, the Garcías' roof, and all the planting to come.

"We will," Finn and I said, together.

"And no fighting this time."

I turned to Finn. “That’s a promise.”

Author’s Note: This story was written in 2022, which up to that point was New Mexico’s biggest fire season on record. This is just one possible future.



GOING HOME

by S.C. Butler

Sara was admiring the view on her wall, white clouds swirling like baby's breath across the beautiful blue planet, when Tai's call pinged her internal. Sighing, she put her hopes for the future on hold and switched his call to the room's external.

He rolled his eyes when he saw what she was watching. "Of course you were looking at Gaia," he grumbled.

"I'm picking out where to put my condo," she answered, her snark matching his. Sensing her irritation, Jupiter crossed the tiny room to purr against her leg. "Care to join me? It's been two weeks since you said it was over between us, so I assume you've come to your senses."

"And here I thought you'd come to yours."

"Don't be ridiculous." Jupiter jumped into her lap; Sara scratched the cat obediently behind the ears. "Gaia is healed. What's left of humanity should return, not continue withering away up here in these flying barrels. The planet's as lush and vibrant as it's ever been, and we have the tech to keep it that way. Tomorrow's vote will confirm that absolutely."

"That doesn't make my position wrong."

"It doesn't make it right, either."

Tai's mouth pursed. Fifty years into their relationship, and he

still didn't like arguing. Backtracking to the reason he called, he said, "I was hoping you'd want to discuss it one more time. In person."

Sara's mood softened. Maybe he really did want to talk. Preferring to do things in person rather than by screen was the main reason they'd partnered in the first place.

"That would be nice," she said. "Where would you like to meet?"

"Can you come to 3?"

Sara was startled enough that Jupiter jumped off her lap. "3? What on Gaia are you doing on Orbital 3? You're a computer engineer, not a geneticist."

"Some of us believe it might make for an effective show of solidarity if we aren't on 4 for the actual vote."

Sara snorted. "You mean you think that if you're off on your own it'll be a lot easier to vote no."

"You know that's not fair. We weren't planning to attend the assembly anyway. Even most of you Returners aren't planning to attend."

"I am." Sara reached down to scratch Jupiter's ears. "I wouldn't miss voting in person for the world, even if there are only two of us. If I pod over to 3 now, there's no way I can get back in time for the vote tomorrow."

"Not even to try and patch things up?"

"We'll have plenty of time for that later."

"Maybe." For a moment, Tai looked like he wanted to say something more.

Sara's voice sharpened. "What do you mean, maybe? Don't tell me you Alts would rather stay up here after you lose?"

"It has been discussed."

"Seriously? You're all crazy."

"Maybe our resolve will help you change your mind."

"I doubt it."

Sara gestured at the planet swirling behind her, then waved her arm at the rest of her miniscule office. Even with fewer than a thousand inhabitants left from the original millions, the orbital still felt suffocating. "An entire planet, versus a tin can that fills less than a cubic kilometer and has no sky? No thank you. Even if it's just to visit, I want to go to Gaia."

Tai stiffened for one final plea. "What if you're wrong? What

if a hundred years from now Gaia starts to deteriorate again? Will the next generation really come back up to the orbitals? We barely made it up here the first time fifteen hundred years ago.”

“I fully believe that humanity, having done the right thing once, is capable of doing it again.” Sara gave Jupiter one last pet before depositing him back on the floor. “At the very least we’ll have stabilized our population by then. Which reminds me, as long as you’re over on 3, make sure to stop by the tanks. One of those future children may end up being ours.”

Tai scowled. “At this point, I sincerely doubt it,” he said, and abruptly terminated the conversation.

The next day, with Gaia’s blue image swirling across every screen and wall in the orbital, Sara counterspun confidently through the empty passageways to the assembly. She’d visited Founders Hall before—it had been one of the required group trips back in school, though it was hard to call something a group trip when you only had one classmate. Other than the parks and hydroponics, Founders Hall was the largest space in the orbitals. Once it had barely been large enough to hold the council representatives from all six habitats, with the meetings streamed back to everyone else in their cramped apartments. Now Sara was one of maybe only a dozen other occupants, far fewer than she expected. Her spirits picked up when Professor Jeuneau arrived with all three of the orbitals’ children in tow. At least some people understood how special this moment was. The children could boast about being here for the rest of their long lives. By the time the meeting began, however, Sara had only counted twenty-nine present, including herself. Her internal told her three more were on the way, but the other nine hundred and sixty-five residents had chosen to participate from home. Still, it was the largest gathering she’d ever attended other than the announcement itself. That event had drawn a crowd of almost fifty.

At the appointed time, Dean Igwe and the other four Council members took their seats on the small rotunda in the middle of the hall. Empty banks of chairs rose up the curving floor on either side, faces scattered among them like spots on a butterfly’s wings. The blank ceramic ceiling loomed close above their heads.

Sara’s internal pinged to signal the start of the meeting. Dean Igwe’s voice filled the chamber, and her head.

“Greetings, faculty. Welcome to the most important day of our

lives. And the most important day of all our ancestors' lives as well. Indeed, one might call it the most important day in the history of humanity, the day we decide whether or not we, as a species, have matured enough to rejoin our planet."

The vidwalls sprang to life. All around the room, and on the ceiling above their heads, hundreds of panels glowed with vibrant, ecstatic life. Sara refrained from rolling her eyes. Although she agreed with the Dean, she still believed this sort of emotional display wasn't necessary. People did not need to be reminded this dramatically of what they were missing. Everyone knew. Despite the gardens at either end of the orbital, they had spent their entire domestic and working lives in cubicles and closets. The images flashing brightly around them had been with them forever. Even Tai, no matter how deeply felt his Altruism, knew the bottomless pull of loneliness from their brilliant blue home. He might hide it behind the belief of a squandered inheritance, but he still felt it. She had seen his tears at the sight of gorillas browsing in the deep forest, or jellies pulsing through the waves. She'd shed the same tears herself.

But not now. Now was too important. Now they had to make the hard decision to make everything they'd done, and everything their forebears worked and sacrificed so hard for, worthwhile. Now they had to decide to return. If they didn't, who knew when they ever would?

"...we have earned this," the Dean was saying. "Our long years of isolation have paid off. Gaia is healed. She is more vibrant now than she has been at any time in the history of homo agricolis. The seas are full. The veldts are lush and vital. The forests brush the sky. Rivers flood and dry, predator and prey ebb through generations. The pulse of life beats strongly in all its many forms. This is what the Founders hoped and planned for. This is the promise we were given. That, once we had fixed the world we so nearly ruined, we could return."

"Blasphemy!" cried a voice.

Sara's internal broadcast the woman's loud complaint before she saw her, a botanist on the other side of the hall, her lone fist raised in protest. Apparently not every Alt had gone to Orbital 3 with Tai. Several more protestors joined the botanist remotely, their voices and faces filling Sara's internal, their upraised fists jabbing straight into her consciousness. She thought of Tai, and his face

displayed immediately, his fist also raised in righteous rage.

“Gaia holds no place for humans!” he shouted. “Blasphemy! This is not the end!”

“It is not blasphemy!” cried someone else. Sara couldn’t find the speaker in the raucous internal crowd, but she recognized the name. A woman from the plankton department. “Humans are as much a part of Gaia as any other living creature. Gaia made us, too!”

Dozens of voices joined the chorus, and the original protestors were quickly drowned out as the majority voiced their support for the measure.

Dean Igwe raised a patient hand. The tumult from Sara’s internal ceased. Until the Dean restored the connection, the only voices that would be heard were the council’s and anyone actually present in the hall. The botanist, embarrassed at being the only one still shouting, quickly sat down.

When everyone was silent, the Dean spoke again. “We’ve discussed these concerns before. Everyone has read the report. Everyone is present, either in person or internal. It’s time to vote.”

Vote totals immediately began to flash across everyone’s screens, though not everyone voted right away. Sara wondered if anyone else was savoring the moment as much as she was. The moment when humanity chose to return to the beautiful blue planet where it was born. Judging from the running tabulation, the vote was going to be even more lopsided than expected. Maybe, when Tai saw how hopeless the Altruists’ cause was, he’d change his mind.

She flipped the virtual lever, and her tiny green light joined the scores of others illuminating the log, drowning out the few red spots of dissent.

The tally rose. New lights appeared more and more slowly. Sara wondered if anyone would refuse to vote. No one ever had before, but this time was different. This vote changed everything.

Another minute, and the log ceased to change. Dean Igwe glanced dramatically around the room, her demeanor directed more at those not present than anyone actually in the hall.

“System?” she asked. “Is the ballot complete?”

“It is.”

“Fellow citizens,” she inquired again. “Are there any questions? Is anyone unable to vote who wishes to do so?”

This time, the Dean's appeal was answered with silence.

"Well then," she said, seeming to finally relax, "the tally is in. System, what is the citizens' preference?"

"Thirty-seven against. Nine hundred and sixty for. The measure to return to the planet is approved."

A broad smile burst across the Dean's face. Around the hall, individuals began to cheer. "Then it is my pleasure to announce, by the power vested in me by my fellow coun—"

The rest of what she said was cut off as Founders Hall began to vibrate. Sara, and everyone else, grabbed their seats to steady themselves, recognizing what was happening at once. Orbits did decay, and 4's orbit had been adjusted before, but those maneuvers were always announced well in advance. This one was a complete surprise.

"System!" Dean Ingwe demanded. "Report!"

For the first time in the life of everyone on the orbital, there was no answer. Sara's fear doubled, and doubled again when she realized her internals were also down.

The Dean turned quickly to her fellow councilors. "Are we connected to anyone?" she demanded. Her unamplified voice flattened weakly across the nearly empty room. Everyone felt horrifyingly alone.

Until suddenly they weren't. A new voice snapped on throughout the external—but not the internal—system. With a shock, Sara recognized it immediately.

Though it really didn't sound like Tai at all.

"Attention, Orbital 4! Do not be alarmed by the test you have just experienced. 4's orbit has not been affected. We only did that to demonstrate our total control of 4's System and to announce our demand. If the current council doesn't immediately surrender power to a new council appointed by the Orbital Committee for Stochastic Altruism, we will destroy the genetic banks here on 3."

Loud gasps echoed faintly around the hall. Even the botanist was shocked. Although there were small genetic banks on the other orbitals, without 3's massive storage they would not have nearly enough to ensure a diverse gene pool for repopulating the planet, even at the small scale planned. There wouldn't be enough for the orbitals to survive either.

"You wouldn't dare," breathed the Dean.

"We would," Tai answered. "And we will. We have explosives

set at all the key points within the facility. If you launch so much as a single security team toward 3, we will detonate our devices immediately and the databanks will be destroyed. You have twelve hours to comply.”

“System, can they do that?” the Dean asked, but System’s silence confirmed the AI was still down.

“We can and will,” Tai repeated. “We are not bluffing.”

Overcome by the shock of what she had just heard, Sara collapsed into her seat. Tai and his fellow Altruists were completely against violence of any kind, just like everyone else. She didn’t believe there’d been so much as a fistfight in the orbitals in over a hundred years. Despite the dreary drabness, society was content, especially now that there were so few people to annoy one another and so much extra space. Tai did tend to sulk when he didn’t get his way, but this was another level entirely. He’d need years of therapy before anyone would forgive him for what he and the rest of the Altruists had done.

Had they gone completely insane?

With half an ear, she listened as the Dean tried to persuade Tai and his associates that this wasn’t a decision the Council could make on its own. Meanwhile the rest of the council did their best to calm everyone down.

Tai finally accepted the Dean’s plea. “Fine. OCSA is willing to extend you an extra twelve hours to make the necessary arrangements at your end. But no more.”

Tai’s voice cut off, and a new one took its place almost immediately.

“Dean Igwe! Can you hear me?”

The Dean and the rest of the Council snapped to attention.

“We hear you, Xao,” the Dean replied. “Are you in Central Control?”

“I am. Officer Korrvivar is here as well. We’ve switched to the emergency frequency. System has been restored, but we’re keeping it shut down while we reboot. We believe that’s the safer path.”

“Excellent. Can the Altruists still hear us?”

“Negative, ma’am. I’ve told them we’re running a system check, which they seem to have accepted for the moment.

Hopefully we’ll be able to engage them with dummy AI soon, which should give the council maximum privacy.”

“Thank you, Xao. Council, if you’ll follow me to the Orbital

Office.”

The botanist, who had descended to the dais during the commotion, stopped them before they could leave. “If you please, Dean, I think you should know that I believe Professor Higato is acting alone. This is the first I’ve heard of any of this.”

Sara leaned forward, her attention suddenly sharp as a knife. The botanist’s claim disagreed completely with what Tai had told her yesterday.

The botanist went on. “I just want to make sure the Council understands we Altruists have nothing to do with this, this...”

“Act of terrorism?” the Dean finished for her. Sara remembered the Dean was an historian as well as a politician. “I believe that is the correct archaism.”

“...foolishness.” The botanist pursed her lips primly.

Sara waved her hand. “Excuse me? Dean, may I say something?”

With a long, patient breath, the Dean waved a hand for Sara to continue. The traditions of the Academy were difficult to put aside even in the most extreme circumstances.

Sara took a deep breath of her own. “I spoke to Professor Higato yesterday, and he specifically told me that he was not alone on 3. He wanted me to join him as well.”

“Why did he want that?”

“He said he wanted to talk. We’ve been partnered for nearly fifty years, and this is the first major fight we’ve ever had.”

The Dean tipped her head toward the ceiling. “Xao? How many people are on 3?”

“According to the logs, Professor Higato is the only one.”

The Dean turned back to Sara and the botanist. “Professors, if you would both care to join the Council and me in the Orbital Office. I believe we have a lot to discuss.”

An hour later, Sara was climbing into a rocket in the bow. Not a pod, but an actual rocket that would get her to 3 in half an hour instead of the normal five. The Council had decided, given the gravity of the situation, the need for speed required the employment of one of humanity’s few non-solar powered tools. They had also decided to send Sara to negotiate with Tai alone. Not only did she know him best, she was also the least threatening. Plus, she was the only one Tai would allow the Council to send.

Sara was eager to go. “If I’d only gone yesterday when he

asked me,” she told them, “maybe none of this would have happened.”

A harness slithered into place across her waist and shoulders as she climbed inside. Acceleration began. Gradually the pressure increased, until the rocket burst out of the orbital’s bow into the piercing darkness of the full night sky and the rockets engaged. Weight heavier than Sara had ever felt before squashed her firmly into her seat; she had to concentrate to breathe. Bracing herself against the relentless pressure, she struggled not to panic. What if Tai actually was a terrorist? No. He might be adamantly against the Return, but that still wouldn’t be enough to make him violent. You might as well ask him to kick Jupiter.

The acceleration didn’t last long and, when it was gone, she found herself looking out through the cockpit at the world beyond the orbitals for the very first time. She hadn’t expected that. Unlike a pod, the cockpit was translucent, and the orbitals were all too heavily shielded to allow windows. The view was even more beautiful than she’d imagined, a hundred times more brilliant than anything she’d seen from a screen, in- or external. To her left, a sliver of blue clung to the side of the shadowed globe. To her right, the starry night gaped unblinking. Mouth open, she gawked at the two views, each so different, each so fascinating. Each so filled with life in its own way. How many of those points of blazing light held bright blue worlds of their own?

If only she could show this moment to Tai, she was sure he’d agree. The universe would always need someone to appreciate it, unlike the nearly empty barrel she’d just left, or the even emptier barrel in front of her.

Silhouetted against a thousand stars, Orbital 3 grew quickly larger, then slowed as deceleration began. Sara again struggled for breath, the underlying anxiety of perhaps meeting a very different Tai than the one she knew not helping. Finally, 3 filled her view like a gigantic pine cone, thousands of solar panels covering its ceramic hull like scales. The rockets shut down; a hatch opened in the orbital. Long grapples hooked onto her floating ship and pulled it carefully inside. The bay re-pressurized. The cockpit sprang open.

“I hope you have enjoyed your trip,” the rocket chirped.

“I did, thank you,” Sara answered. “Very much.”

Clambering carefully out of the rocket, she propelled herself weightlessly into the Main Shaft. The walls rotated slowly around

her, but navigating weightlessness was a skill you never forgot no matter how long it had been since you last lost weight.

Behind her, robots began disassembling the rocket for refueling and reuse. Before her stretched the Main Shaft. Although its length was divided into many large storage compartments and a few labs that benefitted from weightlessness, shuttles stood ready to whisk her away down long side tubes directly to Central Control at the far end.

"I'm glad you finally decided to talk," Tai said as Sara launched herself toward the nearest shuttle.

"You were right," she agreed. "I should have come yesterday. Then I could've talked you out of this insanity."

"You really think you could?"

Sara heard his false confidence immediately. When asked by the council, Psychiatric had suggested there was a strong possibility Tai was bluffing, and the more Sara thought about it, the more she thought that might be true. Tai did tend toward sulkiness when he didn't get his way, but he also tended to always back down in the end.

"I do," she answered as she settled inside the shuttle. "You wanted me to come talk you out of it. Not to change your mind about your vote, of course, but to tell you to at least wait the decade or two that will prove the vote correct."

"What if that's too late?" Tai challenged.

The shuttle began to accelerate as Sara answered, though much more mildly than the rocket. "You've read the protocols. If we negatively impact even one tenth of a percent of species, we'll leave."

"Permanently?"

Sara rolled her eyes. Really, sometimes arguing with Tai was what she imagined it might be like arguing with a child. "That will be for future generations to decide. Maybe by then we'll have discovered a way to live in the orbitals without dying of ennui. Or artificial gravity. You know as well as I do, the physicists believe that once we solve the question of the weak force, our problems will all be over."

"That's what they thought about nanotech, too, and look where that got us."

Sara took a deep breath. Perhaps when they were in the same room together, Tai would be less obstinate. "As I said, we will make

more mistakes. And Gaia and time together will overcome them. But what about you, Tai? Are you really willing to destroy humanity in order to save the rest of the planet?"

"We're not destroying humanity." Tai's voice soured peevishly. "We're removing humanity's infection from the planet. What happens after that is entirely up to us."

"It's the same thing," Sara insisted. "The evidence of the last thousand years leaves no doubt about what will happen if we don't return. Humans can't live like this—even fifteen hundred kilometers from the surface is too far away. Who wants to raise children in a tin can? We need grass, and sunshine, and waves, and rain. A few birds and bugs would be nice, too. Much as I love Jupiter, he's not enough. Nothing up here is. In a couple of hundred years, we'll wither away completely."

"Unless we get another chance."

The shuttle slowed to a stop at the nexus outside Central Control. Exiting the vehicle, Sara took a deep breath and propelled herself the final few meters to the entrance. Now was not the time for self-doubt. Whether Tai was bluffing or not, she had to talk him down.

Inside, she found him strapped into a chair at the top of the circular chamber about ten meters above her. Behind him, a timer in the middle of a hundred other screens showed a clock ticking down in black numbers against a bright red background:

13:24.06...05...04.

Wondering if all this theatricality was more for Tai's benefit than anyone else's, Sara let herself fall slowly toward a chair on the deck across from him. "If it were octopuses threatening to destroy the planet," she asked, "would you destroy them, too?"

"Octopuses aren't threatening to destroy the planet."

"Are you sure? According to the cognitists, they're the closest species to breaking through. And really, what's so different about octopuses and humans anyway? Gaia created us both. Harming either is the same as harming Gaia."

He didn't reply. Deciding they were still too far apart, Sara pushed herself up across the room. As she passed the center, she couldn't help but reach down to him and smile. Just like seeing the Earth and stars, it was much more powerful to see someone face to face. Especially your partner. Screens were not the same. Digital wasn't analog. Tai's face was more textured. Less brutally clear, but

more nuanced. More human. With a screen she would have seen every pore in his face separately, every strand of hair. Without a screen, she saw the whole of him rather than the parts, the same way she'd seen the universe half an hour before.

She realized he wanted her to persuade him, whether he was bluffing or not.

"Do you really think we're that different from octopuses?" she asked softly. "What will Gaia think if she never sees us again? They say there's no harder death than the death of a child. Aren't we one of Gaia's many children as much as any octopus?"

Again, he didn't answer. Settling gently in the chair beside him, she took his hand gently in hers.

"I know you, Tai," she soothed. "Just as you know me. I know how much we both love Gaia. If you really wanted to hurt her, you'd have already done so. But you haven't, and I don't think you ever will. Do you really think she doesn't want to give us a second chance?"

Tai dropped his head in resignation. "I knew you'd never believe me," he confessed. "But I still had to try. Returning is too dangerous. There has to be another way."

"If there is," she said, "we'll find it. In the meantime, healing ourselves is as important as healing Gaia, right?"

He sighed. "I suppose."

Lightly cupping his chin with her hand, she lifted his face. Their eyes met. The brown in his reminded her of the rich dark earth in 4's gardens. Even after fifty years there was so much left to explore.

Together.

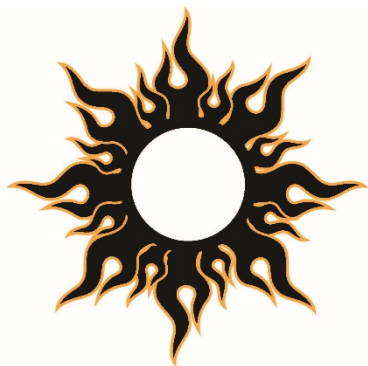
She smiled. "Did you even use real explosives?" she asked.

He blushed. They knew each other so well. "I did, but I don't think they'll work. It's not like any of the orbitals have much information on bomb making. There's not a lot of manure lying around up here either."

"Oh, Tai," she said, squeezing his hand once more. "Let's forget this foolishness and go home."

With a long, soft sigh, he reached up to the blinking screen behind his head and touched the display. The countdown stopped.

Humanity would return.



REFRACTION

by Devan Barlow

"You look worried."

I started at the voice behind me, but smiled once I realized it was Jan.

"From behind, I look worried?"

She rolled her eyes. "Your shoulders do a thing."

"Very scientific." Jan was a solar engineer, specializing in Gleam glass.

"Hush." She draped her chin on my shoulder and I tilted my head. Her familiar scent mixed with the scents of the plants on the roof, making me feel safe. While the building's many balconies held the bulk of our edible plants, the roof garden brimmed with succulents and asters, the bright purple flowers welcoming beacons to the butterflies that had finally returned the year before.

"The storm woke me," I said. "I was worried about the plants." The thunderstorm the night before had ripped me out of a dream, to the sight of lightning drawing temporary patterns on the sky. I'd tried to go back to sleep, telling myself the rain was good for my plants, but had still come out here earlier than I usually did.

"They're always tougher than you expect," Jan said, not unkindly, and she was right. Aside from some wind-scattered petals and soil, my survey so far had revealed no serious damage.

The sun was rising, and the purple-red light inflamed the building's solar panels. As usual, I'd paused my work to watch the sunrise, and I liked to imagine the plants watching with me. My hands and fingers were limned with soil and it made me proud, being connected to the plants and the sky and the life of our Collective. Jan made a small, contented noise as we watched the sky lighten.

Then I tensed, jolting Jan from her perch. She started speaking but I squeezed her hand, tilting my head to get her to look. "The storm," she murmured.

As the sun rose, a strange pattern was revealed on the nearby structure of another Collective. Large, scattered dark spots, as though pieces of it had caved inward.

They used the old style of solar panels, the type we'd used before we had Gleam glass, designed to go dark if they experienced a power failure. Fixing them could take weeks. They wouldn't have weeks.

"It must have started an electrical fire. There's no way they're getting enough power." I pulled back from the railing and Jan lifted her hands from my shoulders.

"You need to tell the other Speakers. We have to help them!"

"Lia—" she started in warning, looking back out over the balcony.

A familiar sound echoed from Jan's waist and she tapped the terminal secured to her belt with solar-threads capable of storing power for up to twenty hours. All the Speakers had them to monitor the systems. Her brow furrowed into a map I recognized better than I wanted to as she read the message.

"There's a Speaking called. I've got to go." She hesitated, and I could almost hear her mind working. "Don't—"

"I understand." I'd long ago resigned myself to the role the Collective took in Jan's thoughts, at the very least neck-and-neck with myself. I picked up my shears, and made a show of culling a weed. This may have been the least "useful" of the Collective's gardens, but taking care of beautiful things was its own kind of important, even if this wasn't what I felt like I should be doing right now, given what we'd just seen. "Go, take care of whatever's falling apart today. I'll see you later." I smiled, but she knew me too well to miss my evasion.

In the end, though, duty won and she left. Her footsteps on

the stairs were out of time with the soft snipping of my shears.

* * *

The Speaking room was on the fourteenth floor, both physically and metaphorically the center of the Collective. Doors on each of the eight sides opened onto balconies rife with plants, most of them currently being tended. Every child learned at least the basics of gardening once they reached the age of four, so all could help to feed and heal the community. It had been a long time since any parent had requested their child be assigned to me, wanting them to learn more "sensible skills." I neither blamed them nor minded the quiet.

Above the top of the doorframes was this level's ring of stained-glass windows. On this floor they were an oceanic pattern, dolphins and fish acting as carriers for the light. These designs were what helped us to survive. The tinted "glass" was actually a composite of glass and nearly invisible wiring that held the energy it absorbed, allowing us to power our systems even at night, albeit at a lower level of use. More importantly, it meant a stormy or foggy day didn't undo us the way it used to, before my father unlocked the secret of what he named Gleam glass.

Seth cleared his throat, urging the Speaking to order as he and Tamara took the center of the room. The chamber was designed so the octagonal space in the center was slightly lowered from the circular seating, giving the impression the Speakers were always at a disadvantage. I took a seat three rows from the floor, on an aisle, my thoughts boiling with indecision.

Tamara, though, stood on the floor like it was exactly where she'd always intended to be. Her dark eyes scanned the crowd and she looked pleased with the large turnout. The Speakers rotated in pairs through leading these gatherings, though everyone was aware that particular combinations garnered greater attendance.

Speakers gave voice to the various departments they headed, as well as administering the Collective as a whole. They met in a private weekly council, but it was rare for Collective-wide Speakings to be called more than twice a month for general updates, and we'd already had a more regular Speaking five days before.

Jan was across the room, in conversation with another Speaker, but she glanced up and saw me. Her mouth pursed in a blown kiss before she turned back to her colleague.

"We stand here together," Tamara and Seth exchanged a nod and then spoke the ceremonial words in tandem, tracking each other in their peripheral to keep the rhythm of the invocation everyone in the Collective knew by heart, "in light of the ones who came before us."

Heads nodded in the crowd, eyes closed in silent agreement.

If I do this, everyone will hear me. I saw my father as if he hadn't been dead for thirty years, scolding me to take more initiative, do something useful with my life, really, for his daughter to be such a useless—

I stood up. Seth's eyebrows lifted in surprise but he nodded to me, giving me permission to Speak.

"The collective to the west of us has lost much of their solar panel functionality." My voice felt too loud in my chest, as if my lungs didn't know how to deal with so much volume. "I motion that we offer them aid." The air in the room stiffened and I felt every eye in the room land on me, like insects swarming a healthy plant.

Stop now and this'll die down after a bit of teasing. My connection to Jan meant even that wouldn't last very long. Just that silly gardener, the one who loves flowers. Pity she didn't turn out more like her father.

I wasn't sure I'd ever raise a motion in a Speaking before, and I was already wondering if I shouldn't have raised this one. But the holes in that building, like bites taken out by hungry jaws...

"I propose we bring samples of Gleam glass with us, so we may instruct them as to its use and help prevent another incident like this storm from laying their systems low."

"What've they ever done for us?" a voice called out from somewhere in the crowd.

"Hush!" Tamara's eyes darted through the crowd to skewer whoever had dared speak out of turn. She turned her gaze to me and I felt myself shrink, though I was almost half a meter taller than her. "What is your reasoning for this request?"

I wanted so badly to look at Jan, but I couldn't. If I let myself divert from this path, I'd never find my way back.

"The ones who came before us made sure we were safe," I said, forcing my father's disapproval out of my mind, "but they did it at the expense of denying their help to others." I remembered seeing people through the windows, those who arrived too late to join the Collective.

"Why can't they come in?" I had asked my father, confused by this harsh act coming from the people I'd been told would save us. "There's plenty of space." To me, any space was plenty of space, after the early years living in that closet by the university, all my father could afford after spending everything on his research. Even to have windows letting in the endless light was freeing.

I didn't know, then, how little exploration would come.

"We're full," was all my father said, all anyone would ever say when I asked why no one else could join us. "They'll have to find someplace else." His words were as clear in my mind as though he still stood at my shoulder.

And I grew up, the building got higher and higher and more balconies were filled with plants and more parties went out to trade and my father's Gleam glass saved us even more than we knew we could be saved. New Collectives sprouted, new growth in my wide, trapped view of the world.

I thought of that, as I refused to let myself think of all the people staring at me, and I said, "I think we can do better."

"We survived, and survive, because of our strength," Tamara replied, her voice taking on a note I didn't understand.

"It's got nothing to do with strength!" I exclaimed before I had the wherewithal to stop myself. "It's about helping people who need it! Isn't that what the Collective is supposed to be about? Caring for the community?"

"There are limits to Gleam supplies—"

"Unless we want to trade with the sea farmers," I said, almost pleased at the murmur this evoked behind me. "Or we want new types of clothing to wear, or we're low on medicine. Then we seem to have plenty of it around."

We gave the secret of Gleam glass engineering to none, but there was a group of Speakers dedicated to producing Gleam-inspired batteries we could trade with, enough to power regular solar panels should weather or other factors render them ineffective, and those made us desirable to other Collectives.

She opened her mouth, her eyes gone hard, but I said, "Why does the community stop only where you say it does?"

"You may be your father's daughter," she said, "but that gives you no authority in this Speaking."

The subtext was blatant. I could have been a Speaker if I'd wanted, could have achieved a better-respected position amid our

agricultural efforts. The daughter of the man who first synthesized Gleam glass could do just about anything she wanted. But no, that opportunity was far behind me, because I had always wanted quiet and solitude and my asters.

Tamara said, "Does anyone second Lia's motion?"

I wanted to turn and look at the other, implore them to back me up, but my father's voice rang in my memory, and I found I couldn't move.

"Motion dismissed," Tamara declared. I stared at the soil caked into the lines of my hands, as the people on either side of me made no pretense of not staring.

"Now," Tamara continued, her voice soft but crisp, "moving on to today's agenda. We have just become aware of a very serious development, one that demands our attention as it involves the Collective's well-being." Her head tilted as if she was considering her next words, though I suspected that was not the case. "I ask Speaker Jan to explain."

Jan?

I tried to catch her eyes across the room but I couldn't. Or she didn't let me. Jan was a Speaker. She led Speakings when it was her turn in the rotation, she reported on the systems all the time. This wasn't unusual. So why did this time seem different?

Seth stepped aside for Jan to take the center of the floor, though I saw him give Tamara a pointed glance, which the other Speaker ignored. Jan returned her terminal to its place on her belt and shook her head, as if shaking off the memory of my ill-fated motion.

"One of our systems has been compromised." Jan went on to explain a shortage in one floor's Gleam glass power. Such a thing meant people had been using power without properly requisitioning it, watching old film discs at night or taking showers when it wasn't their turn or who knew what.

A prickle on my skin brought my eyes up as Jan ended her explanation with a motion to restrict Gleam privileges for floor twelve for the next two months. Tamara was watching me, and I couldn't help but see a glimmer of triumph in her expression.

I looked at my hands again, and my face burned with embarrassment as I realized what Jan's summons this morning must have been about.

I'd asked for people to stretch a little further, give up a little

energy, only for Jan to reveal some of our own were already taking advantage. If we couldn't trust each other to use resources fairly, how could we trust another Collective?

The group to the west had been part of us once, back when our Collective was nothing more than an idealistic series of renderings annotated with hope. They left before my father unlocked the secret of Gleam glass, and the embargo placed on them by the Speakers meant the advance was never shared with them.

A morass of conflict and casting blame filled the room as I hurried away. There was a roaring in my ears, loud enough it wasn't until I reached the staircase to our rooms that I heard Jan's voice only a few paces behind me. "Lia!"

I stilled and turned to her. "Why didn't you say anything?" Anger squeezed at my chest, making my voice thin and ragged.

Jan looked like she'd bitten into something that tasted worlds different than she'd expected. "It's not so simple—"

"You don't think they need our help?" I challenged.

"They do."

"Then it's pretty simple, isn't it?"

Her terminal cheeped and I saw the way her hand went for it, then paused, returning to her side.

My shoulders might do a thing when I was worried, but Jan always looked faintly nauseous when she tried to conceal her own, albeit less-frequent, anxieties.

"What did the Speakers demand, Jan?" She'd seen the damage the other building suffered. She had plenty of time to tell anyone she chose, if they hadn't already noticed it themselves.

"Look, if we give them Gleam glass, everyone else is going to want it, too. We don't have those kinds of reserves. Where do you think it's going to stop?"

I stared, startled to hear her say something so uncharacteristic. As if she were parroting another's words. "Did floor twelve really use unauthorized power?"

She didn't answer me. Her terminal cheeped again and she mashed her thumb down until it quieted. "Lia, can we talk about this?"

"We need to be better than the ones who came before us."
Better than my father was.

"The Speakers have decided we can't afford to share Gleam

technology with them. They'll have to find help somewhere else." Jan took a breath. "Any of us who offer them aid will be punished."

"Was floor twelve actually what you got called about this morning?" I asked, fearing I already knew her answer.

She sighed. "Some of the Speakers noticed the storm damage to the other building."

"Would anyone have brought it up at the Speaking if I hadn't?!" I paused, as a horrible suspicion bubbled like acid in the back of my throat. "Is what Tamara said about floor twelve even true?"

"We don't have the reserves—"

"So if I go to the Gleam workshop right now, and investigate our supplies, that's what I'll find? That we don't have enough to help keep that other building full of people alive?"

"Lia." She squeezed her mouth shut, then let out a breath.

"We have to think about ourselves first."

And that told me everything I needed to know.

"Get away from me." My world narrowed to this person in front of me, this person I now feared I had never truly known.

"What?"

I couldn't believe Jan was willing to let this happen. But just as painful was the realization that I'd been so wrong about her, for so many years. "*Get away from me.*" I was aware of the hurt like it was happening to someone else, some other creature who wasn't me because I *couldn't* be hurting as much as this hurt. I couldn't possibly survive that.

* * *

In the back of my closet there was a box.

An old box, clearly from before the Collective. The kind of box you bought cheaply at a large store, in a pack of half a dozen or ten. Impractical, not recyclable or even sturdy. Something to be used once and thrown away, adding to the heaps of trash and pollution everyone now tried to pretend had never been part of our past. But I kept the box, because getting rid of it would have meant relocating its contents.

My father gave me the original Gleam sample after he used it to acquire his contract with the group of investors that became the Collective. I think he thought it would spark something in me. An industrious, inventive spirit, simply waiting for the right reactant to burst free. Perhaps a constant reminder of his greatest achievement would spur me to greatness.

It never did. I'd never opened the box, never told anyone, even Jan, that I possessed it. The Speakers would have demanded it if they knew.

But I opened it now and stared at the striated slab. The original prototype wasn't as translucent as the current versions, its wiring still visible. If you looked closely at modern Gleam, you saw strange streaks running through every pattern, but they were nothing compared to the original. This was ungainly, imperfect.

But the one thing I admired about my father? The things he made *worked*. From this prototype had come the vital technology that surrounded us now.

When I was growing up, he had always encouraged me to follow in his footsteps, to have bigger dreams than gardens. He was good at overlooking the fact that his inventions weren't the only thing that kept the Collective safe. But there was something he'd said to me, so many times I could only hear it in his own, slightly-exasperated cadence.

"You have to start with something, even if it's rough. Otherwise, you'll never refine it."

It was only when a shadow fell on the sample that I realized how fast the day had slipped away from me.

I didn't know an easy way to fix things. But if I never tried...

I unbuckled my belt, looping the fabric and solar-thread creation to hang over a hook in the closet. I didn't have a terminal to worry about and I didn't want to bring anything the Speakers could track. I changed into warmer clothes free of solar-thread, leggings lined with wool the Collective had traded for and an old jacket with a large inner pocket on the left. It was snuggler than the last time I'd worn it, but it would do. I put the Gleam sample in the pocket and imagined it pulling energy from the sun to power my heart, as my pulse quickened.

* * *

As I stepped outside, the darkness fell on me like a blanket, one drawn by a hand pretending tenderness but really wanting to suffocate me. I willed myself to breathe deeply. This was air, not rancid smog flowing through my nose and mouth. Nothing that could hurt me. Those days were gone.

Yet I couldn't lose the sense of something lurking. Darkness was the time for staying inside until the sun returned, for being grateful for the advances that let us stay safe. For being a creature

contained, happy with one's walls.

I rubbed my fingers together. My plants would miss me in the morning. My throat tightened as I wondered how long it would take for anyone to think of them.

They're stronger than you think. Always. They will survive.

I wondered if the storm-damaged Collective had the resources to spare for something purely beautiful, something that brought them butterflies. I forced my feet forward, though every step weighed heavier on my heart.

I'd spent so much time staring out from the roof that the immediate area was ingrained on my vision, but I suddenly felt absurd for thinking that would ever help me. My mind refused to translate my view from the roof into paths for my feet. I slipped a hand inside my jacket, making sure the sample was still there. Solid, cold. A sort of comfort, though not one I found much gratitude for. A sound stilled me.

"Lia."

"Jan?" The night made it hard to see, but I knew the planes of her face.

"I don't know how you get around out here." Jan sounded relieved, like none of the last day had happened. "Guess all that staring into space has done you some good after all."

Pain stabbed my heart as I realized what was about to happen. "I can't come back with you. I have to help them."

"I know." Jan stepped closer. I steeled myself for whatever imprecations might come, whatever coaxing promises she would make me.

My father would have frowned at my foolishness. Frowned, then turned away from me. Perhaps that was for the best.

My stiff fingers were eased apart. I looked down. Jan's hand, interlaced with mine.

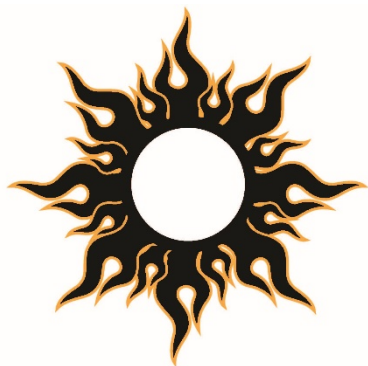
"Jan..." *Please don't ask me to come back with you.*

"Which way?" she whispered. "This place is so important, but it's never been the whole of the world. We can't keep pretending like it is."

I squeezed her hand without meaning to. "You—"

"Which way?"

We walked into the darkness, our feet carving new patterns in the absence of light.



OF GRACE AND YOUTH AND MEMORY AND TIME

by Chaz Brenchley

The funeral was over. They had buried Mother Grace in a willow casket woven with woodland flowers gathered in the dewlight, numb fingers and hollow hearts.

Now, on a day with no school and no chores, they soaked in the growing warmth of the sun and debated how to use this rare gift of time, the last good thing that Mother Grace had brought them.

As usual, the twins were tangled in each other's space and business, Gravely's head in his sister's lap while she braided one long dark lock of his hair.

Their shifty companion Flex kept a little commonplace distance, perching on the hub of a buried sand battery, drumming their heels on the casing because Flex could never be still.

"Marline didn't come," they said.

"That she didn't. But then she wouldn't, would she?" Mirth tied off that braid and started work on the next. The twins loved to dress and groom each other; today he had put her in vivid colors to offset her solemn nature—they were strikingly misnamed, Gravely the fool always questing after laughter, but both were steadfast in their refusal to swap—while the somber outfit she'd chosen only emphasized the bright soul Mother Grace had fostered in him.

“So, let’s go and see Marline. She might like company, such a day. She’ll be all in her head, you know she will.” Grace and Marline had been a story for the ages, a page in the community’s legendarium. Passionate together, they had proved just as passionate apart: one reason why Marline lived away, at the foot of the old broken dam. It was quieter for everyone. She worked on restoring the river, befriending the returning beavers as they came; Grace had focused on her own chosen labor at the core of the community, a teacher and a leader and a flame.

“Best take boots,” Mirth said. “She’ll make us work, you know she will.”

“Best take a full change.” Gravely never minded getting muddy or wet, but he did hate to stay that way.

It was a decision, then. Flex grinned and slid to ground. “We can take her a bottle of cider, too.”

“Take two, drink one on the way. If she’s rude—” they had brewed it themselves “—

we’ll take the other bottle back and drink it on the way home.”

“Of course we will,” meaning *of course we won’t*.

* * *

Oddly, Flex didn’t care about clothes, only the body beneath. They wore the same rugged, convenient gear day in and day out. Expeditions like this, it meant they were always first to be ready, always needing a way to pass the time until their friends caught up.

Today they were testing the calibration of *hawksight*, their latest mod. Born freemartin, they had decided early that their body should be their canvas, a unique creation. From the first tattoos and piercings—gone now, most of those: child’s-play, no more—each mod had been carefully talked over within their intimate circle of three. At sixteen, no longer in need of adult approval, they carried more abstruse tech beneath their skin than anyone in the community.

Mother Grace had been a stalwart enthusiast, a bulwark against the doubts of group-parents and others. “That body of theirs is a problem, all ways up. Let them find ways to be more comfortable, more engaged with it. Besides, whatever they do, they can always undo later. Where Flex is concerned, nothing will ever be permanent.”

So now diodes gleamed in the corners of their eyes and they could zoom in on anything—that hawk, say, hanging high and still

—and clip an image, capture the intent gleam in its eye, *hawksight* recursive, they loved that. And as they were their own instance, a private node in the common network binding society together these Remade days, they could send image and title to their friends with a flicker of thought. Mirth would check her terminal instantly, and show it to Gravely, who never did. Gravely would play with the image and send it back with a smaller iteration embedded in the pupil of the bird's eye, a smaller yet embedded in the pupil of that, iterant to the end.

Flex was training themself to view such traffic inwardly while still using their eyes in a normal manner. Not there yet; Mirth said it gave her a headache merely thinking about it, and certainly Flex had given themself a few, trying to doublesight too soon. They were determined to master that, though, before even starting to consider their next mod. Hence the hurry.

But then, Flex always was in a hurry, particularly aware of how short a time they had, or might have. Freemartins were rare, too few and too far scattered to have been studied much; some reports, though, did suggest the chance of a briefer lifespan.

The twins came back at last, to find Flex practicing their juggling. Always something, always moving.

“Does *hawksight* help with that, too?” Mirth asked, catching balls one by one as Flex tossed them, stowing them in her srip. Flex's backpack was overstuffed already, between a change of clothes, a second pair of boots, and a couple of bottles, necks jutting from below the flap.

“Um. Yes/no? Everything's sharper, you wouldn't *believe* the detail, I could get lost in the pores of your nose. More than that, vectors are—I don't know, easier to assess? Almost drawn out for me, sketched into the future. So yes, my eyes know where that ball is going. Trouble is, my hands don't coordinate with that data, not yet, they still want to rely on muscle memory, so no. I actually drop more balls, even though I know exactly where they'll be and when they'll get there. It's frustrating. Temporarily.”

“Everything's temporary.” Mirth said it, but it might have been any of them. This was canon, an absolute; life was change. Flex merely embodied the thesis. Was the exemplar. Something.

* * *

Their route out led the three past great banks of solar capture screens. Tomorrow after school, their class was tasked with cleaning

those. Fun every time: climbing, sliding, swinging on the scaffold, racing for the highest perch, the furthest view. Almost falling, never quite. And then calling themselves to order and doing the work scrupulously well, in defiance of their own ramshackle reputation. Leaving the screens gleaming in the last of the light.

* * *

Here were the woods where they'd picked Mother Grace's flowers. Of course they talked about her, how not?

"That time when the *tai fung* came—" this wasn't the hemisphere for typhoons, and it had been a whole other kind of storm in any case, weather making war without warning; but *big wind* seemed close enough, and they had latched on to the Chinese name with glee "—and the shutters slammed down all through everywhere, and we'd never heard that before and it was so *loud*, and we were frightened—"

"—so she made us wind one of them up and then down again by hand, and it was so heavy, that was so hard, we absolutely promised never to be frightened by noises ever again—"

"—but remember, she let us watch the *tai fung* coming before she made us wind it down, and it was amazing, seeing the sky just *walk* towards us like that, and all the trees on their knees as it came —"

"—and then Flex asked if they couldn't just put their head out of the window, just to feel what it was like—"

"—because of course you did—"

"—it was expected of me!—"

"—and she said she'd tie you to a string and fly you like a kite till you could feel it from the inside out, which you would be..."

* * *

Telling stories haphazardly, always interrupting; swilling cider as they went, tossing the bottle from one to another; thus they came at last to where the river was remaking its banks, revising its course, finding its own way down to the sea.

And of course Gravely flung the bottle too high and too hard; and of course Flex sprang for it anyway, and caught it neatly by the neck, a triumph of hand marrying at last with *hawksight*. And of course they had leapt without thought and overreached the bank, landed entirely in the river and were engulfed.

It didn't matter. The water was comfortably cool in this season, and besides, Flex had *halation* as one of their mods. "It isn't

gills,” they’d protested, laughing, when Gravely teased them before the surgery. “It’s a rebreather, kind of. Only internal, mostly. And yeah, it does take some oxygen from the water, but I won’t have *gills*...”

Nor did they, though checking had been fun; but now they could stay under the surface long and long. Which they did at every opportunity, musteline and annoying; so the twins sat down on a fallen tree, its roots exposed, washed clean by the sidling, nudging river. They lamented the bottle—both bottles, come to think—and quarrelled amiably over who should give up their change of clothes, wondered whether Flex would have kept hold of their pack or lost it to the current and the murk of the river, and waited with the patience of long practice.

Eventually, there came bubbles rising and then a dark head breaking water, a little upstream from where they sat. Flex spotted them and swam over sidestroke for some reason, one arm not showing above the surface.

“Are you hurt?”

“Not them,” Gravely said, just as Flex shook their head with vigor. Came to the bank, held their other arm up—bottle clenched in their fist, backpack dangling from a strap.

Gravely took control of both. Mirth gripped the emptied hand, Flex grasped a tree root and slithered up onto the trunk. Even they were breathing a little hard, paying an uncommon oxygen debt; for a minute they only sat and dripped. Then, eyes glimmering with more than *hawksight*, they said, “I found a thing, something new.” Which meant something very, very old. Long lost, from before the Remaking.

“Tell!”

A shake of the head. “I have to show. Come and see.”

They were already stripping away sodden clothing, pulling off their boots, ready to go back in. The twins followed suit; naked and easy, leaving Flex’s wet things draped over those accommodating roots, they dived into the turbid river.

“Flex? How long will we be under?”

“One minute. Perhaps two. Breathe deep.”

Treading water, drawing slow breaths and holding them, letting them out just as slowly, squeezing as much oxygen as possible into their blood, while Flex waited with all the impatience of long practice; then Mirth checked silently with Gravely and

nodded their readiness.

Flex was gone in a moment, over and down. The twins followed hard on pale heels, through water so thick with mud there was a constant risk of losing them in a moment's inattention.

Until they'd gone some little way upriver, at least. Then, even through all that murk, the twins could see their goal ahead: a light, dim and disguised but a light nonetheless.

Flex surged ahead. The twins were slower to navigate roots and rocks the river had laid down at its margins, but soon enough they caught up with their waiting friend, at the broken mouth of a pipe—a concrete pipe, meaning an ancients' pipe, and hitherto undiscovered, or they would have known—leaking that light into the water.

Flex beckoned, then ducked into the pipe and out of sight. Of course they did. Gravely might have followed, but Mirth caught his arm, shook her head urgently, pulled him up to the surface. There, through a tangle of weed and roots and ruin, she made him go through their deep-breathing cycle again: "We don't know how far that runs before it comes up for air. If it does. If Flex has even been to the end of it."

Fair point. The twins breathed, and breathed, and calmed their excitement and breathed again. When Mirth was satisfied, they duck-dived and half swam, half pulled themselves back down to that odd-lit mouth. In this time, finding it broad enough—just, in Gravely's case—to manage a kind of cramped doggy-paddle without slamming arms or knees or feet against the 'crete. After one barked elbow, though, he found it easier simply to lay flat hands on the rough surface and push himself along.

That steady light led on and on, coming brighter all the way. Even Gravely was beginning to worry whether they could actually reach it, on the last of their air—which meant that his sister behind would be frantically anxious by now—when at last the pipe debouched into a square and artificial pool, surrounded by walls that shone on every side.

Flex sat on the pool's edge, splashing their feet in the water.

"Naming rights go to the discoverer," they said complacently. "Welcome, one and all, to Flex's Find."

The twins spent some time just catching their breath; then Mirth said, "You don't know what this is at all, do you?"

"Not a clue. I'm pretty sure that pipe wasn't meant to let the

river in, though.”

“Well, no,” Gravely agreed, examining his palms ruefully. “That was an upslope, all the way. This was a drain; they did... something messy...here, and then sluiced it away downstream.”

“And the returning river opened it up for us to find. For me. I’ve never seen so much glowstone,” they added, gazing about at their own revelation.

“We’re not supposed to call it that anymore,” Mirth pointed out. “Not since they figured out the formula and gave it a proper scientific name.”

“Which you can’t remember, and neither can I, and there’s no point asking Gravely. Glowstone it was and glowstone it remains, at least here in Flex’s Find.”

“All right, don’t get dictatorial about it. Or possessive. Naming rights I grant you, but you’ll get no say else, once the adults know this is here.”

“Which is why we need to explore everything, right now, before they find out. Come on.”

* * *

A doorway brought them to a corridor, which led past a succession of open rooms, all lit by that same warm gentle light in all the walls, that never—or had never yet, in any sample found—dimmed or died. Like so much of what the ancients left, it was a ghost technology to be tracked, investigated, understood, but never recreated for fear of gutting the earth again, initiating another cycle of the destructive passions that had led to the breaking of the world.

And then of course, at last, to the Remaking: and thus to them, these three, standing in the ruin of their ancestors’ work, never hoping to understand it, wanting only to see everything that was here to be seen, before they told their seniors and thereby lost it all.

Trees overhead had broken through the ceiling, again and again. Rainwater and wildlife had brought soil and humus cascading down; the three of them walked almost on a living forest floor, bare toes sinking deep. Earthquake and flood and mere time had done more and deeper damage. Nothing was level here, and little was dry. That troubled them hardly at all, as they scrambled over tilted slabs of flooring and leapt gaps that gleamed darkly, smelling of stagnancy and rot.

Under the filth and the slow destruction, the work of ancient hands still lingered yet. Pipes ran everywhere, narrow and not, broken and not. Banks of machinery were here, room after room: their meanings obscure and perhaps undiscoverable, their constituent parts long familiar and long valued.

"This'll be school, all next week," Gravely said with a sigh. "Clean everything, take everything apart, carry it all back to be sorted and shared around." They wasted nothing, in these frugal days. Even the old dam was being nibbled away for building rubble. There was no hunger to remake the technology or culture of the ancients—that was anathema, indeed—but every circuit board and silicon chip could be repurposed, put to another and a better use. Flex had several of the latter buried in their own flesh, courtesy of Marline's delicate and visionary work; they hoped for more to come. This was a treasure trove, a bargaining chip by any measure. Simply bringing news home to the community should earn them kudos enough for any further mod they could persuade Marline to create.

"We'd best find a proper door, then, and see if we can get it open. Imagine Father Benlow in that pipe?"

"He'd get stuck partway."

"It would be a tragedy."

"I'll go." Giggling, Flex slipped off ahead and vanished around a sudden corner, leaving the twins pacing out dimensions so they could sketch a decent map when they got home.

"No, wait, I didn't mean—"

"Oh, Mirth, just let them go. They're too excited for the boring bits. Besides, it's their Find; they want to be first everywhere. How much trouble can they get in, anyway?"

"All of it," Mirth said forebodingly, only moments before a shrill scream came echoing back down the corridor.

Impossible to run across the broken, treacherous surface, but they made what speed they could, up to the corner. And spun around it—and almost demolished Flex, who was merely standing there, barely two full paces into what appeared to be another corridor, much the same except much dimmer somehow. Was even the glowstone here failing...?

No, it was not; only that both walls had been coated with something that obscured the glow and left all the corridor in shadow.

“Is that, is that,” Gravely needed three runs at it to get to the end, “is that *paper*?”

“Laminated paper, I think, or something like it. It couldn’t have survived down here, else.” It had barely survived anyway, yellowed and cracked with age; but it was here, and it was rare beyond wonder.

Mirth went up close to one wall and squinted at it. “There’s, there’s patterns here, tiny intricate nonsymmetrical patterns, what probably used to be black on white. And little pillars beside, that might be columns of text, only they’re too small and the light’s too bad, I can’t read them.”

“No, but I can.” *Hawksight* glittered lively in Flex’s eyes. “The patterns are schematics, and the text is instruction. It’s crazy complex, and I think they had to shrink the data down that far just to get all of it up here on the walls. I think it’s like a guidebook, a manual, how to make this ... place ... work. Whatever it is, or whatever it does. Did. Whatever it was meant to do.”

“Why on the walls, though?” Gravely asked. “Especially if no one normal can read it.”

“They were shutting down,” Mirth said slowly, thinking it out as she went. “They knew they were going to lose power; if it was the drought, then I expect the reservoir was a dead pool, no water coming past the dam. They’d lose hydro, and obviously they used the water, too, probably for coolant. Maybe they knew already that the whole of society was on the edge of collapse. So they left this for...for whatever came next. For us. With instructions on how to start it all up again, how to keep it in good repair.”

“Assuming that we’d want to. Whatever it was. Why would we want to? They must have known the damage they’d done, places like this, that mindset...”

“Sure, but that was the only mindset they had available. Maybe this place was built to help, to undo damage, clean the air or something, I don’t know. They’re offering it to us as a gift.”

“Well, so. What do we do?”

“We go to see Marline, of course. As we were. And we tell her about this, first of everyone. Flex, what if you—?”

“Already on it. Your terminal is buzzing, back where we left our things; Gravely’s back at the settlement, because of course he didn’t bring it. Marline’s, too. Images of everything, and blow-ups of a couple of these panels so she can see more or less what’s what.”

Gravely whistled softly. "You can do all that? Just by thinking about it?"

"Just by doing it. I only have to do it in my head, is all. Ask Marline, she'll mod you up, too."

"No thanks. One Flex is plenty. A bit too much, if you ask me, a bit too often."

That inevitably led to punches and oaths, naked wrestling, the sound of Mirth's eyes rolling skyward an almost audible distraction. Soon enough, though, it ended as it always did, slight Flex's head trapped under Gravely's arm, his fist scrubbing knuckles in their hair.

"Ow! Get off, get off, you great ox, it's Marline!"

Gravely let them up, grinned at their glower and said, "What says Marline?"

"She says don't go to her, she'll come to us. She's coming now. Which means..." Flex gazed about, somewhat at a loss, trying to comb their hair straight with their fingers.

"Which *means*," said Mirth, "that we need that dry way out of here, snappish. She's not one for adventurous swimming."

No, she was not. They turned away from their discovery and hurried down the corridor, till at last they did find a set of steps that led upward, to what clearly had once been a door. Bunker-strong, that door, but fallen now regardless, its pillars either side eaten away by roots and time and acid rains and more, perhaps. Worse, perhaps.

What blocked the way now seemed to be a solid bank of earth, all riddled through with roots; and they had nothing but their hands and wits to tackle it with.

Tackle it they did, then, with all the earnestness of haste. It wasn't so bad, once Gravely had tested the coherence of that bank with a few shoulder-charges across the width of the landing. Roots and soil made poor friends, in an unsupported wall; tear through that network of cables and threads, and what seemed to bind them together would crumble and fall away.

Even so, they were all bleeding and filthy, by the time they broke out to open air. Gravely looked them up and down, and said, "Someone had best dash to the river and bring our things, before Marline—"

"We had best all dash to the river," Mirth corrected, "and wash first, groom after. Before Marline."

She was right, of course; and so they did, assuming that “groom” in this context meant addressing their various cuts and scratches, broken nails, the best they could manage with their hair.

And then another hectic scramble back, because of course Flex had already sent the coordinates of their Find, and Marline was nothing if not swift in pursuit of the new. More than one of them might have been bleeding again, in their hurry to give her a proper welcome.

Still, there they were, relatively decent—Flex in borrowed clothes which didn’t fit, which didn’t matter—and Mirth was stubbornly trying to untangle Gravely’s braids when they heard sounds of an approach, a voice calling. They called back, Flex ran through the trees to act as guide, and brought back Marline.

Marline: what is there to say of the settlement’s *genius loci*, except that she kept her distance now? Hers the mind, hers the knowledge, hers the fingers that could conceive and make the mods that remade Flex, but she never could remake what lay broken between herself and Mother Grace. That had been catastrophic, epic, transformative; it had written itself into the settlement’s story of itself.

In person she was small but not frail, by no means that; gray but not wrinkled, not yet.

She had brought a machete in her wisdom, so that Gravely could make himself cheerfully filthy again, hacking away tangled roots and what soil still clung to them, making a doorway of what had been a curtain.

The more he cut away, the more light filtered out. It might have been a metaphor.

“That’s enough now. Thank you.”

He wiped the machete’s blade carefully on one of Flex’s wet shirts, stepped respectfully out of the way, all but bowed her through, before the three of them crowded in at her back.

Down the steps and along the corridor to where the light was dimmed by papered walls. Marline strode the length of it, looking left and right, though she had no better hope than the twins of actually reading any of it. When she came to the final panel, she stopped, reached up and ripped it from the wall with a sudden, startling ferocity of purpose.

Both twins gasped, as the ancient paper all but disintegrated at her touch, even before she stamped it into shards underfoot. Flex

cried out aloud. “Marline, no! I mean, I have my images, I’ve got it all, but—”

But Marline walked steadily back towards them, reaching left, reaching right, destroying every vestige of the ancients’ work, while Flex and the twins could only stand and watch in a kind of paralytic horror. More and more light shone out behind her as she came, but since when was a ruthless vandalism any kind of metaphor?

Only when she was done, when she stood before them dusting her hands off with a challenging gleam in her eye, only then did Mirth put the question: “Why?”

“For the same reason that you will take out your terminal now, child, and let me see you deleting everything Flex sent to you, as I have already done on mine. Gravely, I don’t suppose...? No, quite so. I will come back to the settlement with you, and watch you do the same. Flex, do it now, and send me the record of it.”

Flex wanted to protest, that was clear; but after a moment’s stubbornness they shook their head, blinked a little, and said, “It’s done.”

Marline’s terminal chimed, in her jacket pocket. She took it out, glanced at the screen, nodded briefly. “Very good. Thank you.”

“Why, though?” Mirth persisted.

“Because this is always done when we find manuals, data, anything that could lead us to the same ends as the ancients. Instant and irrevocable eradication, in any form. Their materials we can reuse, to our own purposes; their works, their *minds*? We cannot, we dare not. We do not want to—but eventually, inevitably, someone would. For the noblest of causes, no doubt, seeking only to help us progress along our current path the faster; but that way calamity lies. Those who seek speed will make compromises, will step away from wisdom, will take chances with technology. Will doubtless believe they can be stronger than the ancients, knowing the dangers now. That is the greatest danger of them all. Flex, did you understand any of what you read or saw?”

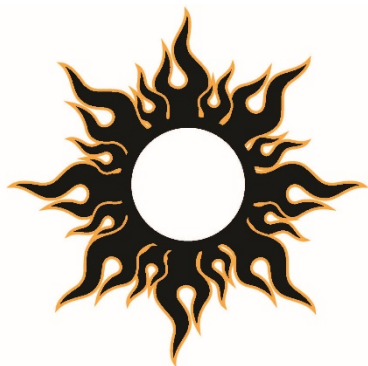
“No-o—but I might have, if I’d had the time, and someone to talk it over with. You.”

“Exactly so. And it would have settled into your mind, into your patterns of thought; and it would have influenced everything you did hereafter. Hence this absolute policy. I’d wipe it out of your memory, too, if I could. Oh, don’t look so anxious, fool; you of all people should know I can’t do that. Now sweep out this corridor,

and lose the sweepings in the leaf-litter outside. Tell the settlement what you have found here, cry up your own cleverness, demand to be first to start taking it apart and salvaging all that's good, it is your right and your task together; but say nothing of writings or schematics, any of you. It's just another abandoned site, good for nothing but scrap. I will come with you, to be sure of Gravely's terminal, and to confirm the value of your find."

* * *

Along the way she spoke of other things, nothing that mattered, no part of anything this day had brought. When they reached the settlement, after the first surprise and greetings, after breaking the news and allowing that yes, she would stay tonight, it was too late to head home now; and yes, she would join the party that headed out to Flex's Find next morning, though the children of course must lead it, theirs the glory—after all of that, she went to sit an hour alone by Mother Grace's grave, and all bar three witnesses understood that this was the true reason for her coming, everything else convenience, excuse, misdirection.



UMBRELLA MEN

by Liam Hogan

We were working on U-184c, just coming out of Earth shadow, when ground comms blipped into life.

“Service Shuttle Beta Seven, do you copy?” Issy was on the EVA, and I, from the shuttle's controls, was micro-managing her every step. But she didn't need me for a minute or two.

“This is Sally Philips on Beta Seven. What's the word, command?”

“Sally, we've got a reassign for you. Can you put one-eighty-four to bed?”

I scratched my head. We didn't get to any one umbrella that often, so it made sense to give them a full health check whenever we did. There was another hour of routine checks and diagnostics, not quite essential, but it was distinctly non-SOP to close up without them.

Command knew all of that, so I guessed it must be important. I toggled channels.

“Issy, hang five. I'm talking to command.”

“Roger that, Sally. Don't leave me out here *too* long.”

“Wouldn't dream of it, Issy. In fact, we'll be wrapping up before last orders. Prepare to come in.”

I switched back to the familiar voice of command. “It'll be

fifteen minutes before Issy is on board. What's up, Greg?"

"We have an outage on two-seven-b." Twenty-seven: a low number, one of the older umbrellas. Now famous, I guess, with a lower case *f*. "Routing navigational guidance and uploading latest diagnostics. How's the view up there today?"

"Spectacular." Another glorious sunrise, the sixth of the day. Below I could make out the northern tip of Australia. I tapped the pinned picture of my three nieces, Claire, Emma, and Grace, sending them my love. "You should visit."

"I might just do that. Two-seven-b is going a little fast for you, Sally. Going to have to burn some to match."

I checked the nav. Usually the AI calculates the most efficient path, and for efficient, read "slow." This was an early bath and a fast intercept. "Any reason for the rush, Greg? Is no-one closer?"

"Actually, yes: Beta Four is in attendance. But they've hit a snag and would appreciate your assistance."

My stomach fluttered. A snag, in space, had a nasty habit of unraveling. It wasn't being pitched as a rescue mission, but two-shuttle repair jobs were rare, even if Greg was treating this one as nothing more than a courtesy call.

"Roger that. Course laid in. Speak later, Greg."

* * *

They called us "umbrella men," even though just under two-thirds of us were women and what we looked after were more like parasols. Strictly, more like the large, flimsy, reflective disks photographers' assistants use to bounce light around.

Down on Earth, the shadows the umbrellas cast are what they were best known for. The momentary dimming of the sun as a dark spot traveled rapidly across its surface, no more intrusive than the passing of a thin cloud and just as brief. Small potatoes compared to the massive re-greening projects. It's *trees* that are helping to undo damage centuries in the making. And just as the new forests take time to fill their allotted spaces, there's a new umbrella in orbit every three to four days. Another bright oval speeding through the sky after dusk and before dawn. Another umbrella for us to commission, and further down the line, to maintain.

Fleeting shadows weren't the primary purpose of the growing array of solar reflectors. They were just the most obvious.

* * *

Issy stuck her head into the shuttle control cabin as I was

pulling diagnostics, trying to work out what we were dealing with. Her face still marked from her helmet, well overdue a sleep session, and post-EVA ravenous, I reluctantly filled her in. Reluctant because, though it'd take the best part of an hour to rendezvous with the stricken umbrella, and there was nothing much to do before then except worry, she wouldn't sleep once she heard the news.

But I couldn't not. I'd checked who was on the other shuttle's roster: Alexei and Lillian. I hadn't worked with either of them, but Issy, who was two years deeper into her seven-year tour than I was, had.

"We're to assist Beta Four with an outage. It seems they're struggling," I told her.

"Oh." She pulled a face, wrinkled her nose. "Don't much like the sound of that."

"Me neither. But we'll be rendezvousing as two-seven-b heads into shadow. I guess that's why command pressed the accelerator, though they don't seem overly concerned."

"*They're* not up here."

I snorted at that, but my Nigerian partner had a point. There weren't many jobs quite as hazardous as umbrella repair. Space was unforgiving. By the time my tour ended and I got to visit the sleek memorial lifting out of the grassy mound outside of ground command, how many new names would have been added? How many would I recognize?

Issy stifled a yawn. "Is it your turn, or mine?"

The two-person crew of a service shuttle alternated EVA duties, someone always at the helm. On USS-A and USS-B, the two Medium Earth Orbit space stations that supported the umbrella project, EVA's were two-person jobs. But we didn't have the astronauts for that. Preparing a new crew took seven years training for a seven-year tour. And few made the grade or lasted the distance.

It wasn't just repairs. Each new umbrella took two shuttle crews and two consecutive six-hour EVAs. While they're being commissioned, the umbrellas are orientated perpendicular to the sun, that way the optics and central turret remain in shade. They're only spun into position—and given the slow, steady rotation so that, like a sunflower, they always face the sun—when they're good to go.

It's possible to rotate them back for major maintenance. But it's

not ideal. An umbrella is such a big, flimsy thing, with a wingspan of up to a kilometer, that even a simple maneuver takes a couple of days and consumes expensive tanks of attitude propellant. So, for most repairs and maintenance, work had to happen while an umbrella was in Earth shadow. A timed slot, and not a generous one.

Basically, we were stretched thin, up here looking down.

Issy had just pulled a double-maintenance. I'd been awake for longer, but with less to do, sat safe behind the shuttle controls. Being out there, having to think and rethink the consequences of every action, was always more tiring.

"My turn, I think," I said.

Issy rewarded me with a weary smile. "Thanks, Sal."

"Though, and this should make no difference, Alexei Guryanov is on Beta Four."

"Huh." She gave a little shrug. "Well, *yeah*. It does make a difference. But not a big one. He's a typical umbrella *man*, you know?"

I did know. Some men, especially those from traditional astronaut-producing countries like America and Russia, ended up with a superiority complex. Alexei must have rubbed Issy the wrong way during their stint as partners. And Issy was the best and easiest-going umbrella woman I'd worked with.

"I'll take the helm," Issy offered. "Why don't you grab a bite before you suit up?"

"Sure, thanks. Want anything?"

"No, I'm fine. These the diagnostics for two-seven?"

"Yup. Knock yourself out."

* * *

An umbrella is distinctly low tech, which is why they could be fabricated in the lower gravity of the moon, where they didn't need to be folded up (like an umbrella) and lugged out of Earth's gravity on a ginormous rocket while battling the bumpy atmosphere. Without the lunar base, there would be no umbrellas. And without the need for umbrellas, there would be no Lunar Base.

The computers, the laser gyros, the control and communications package—the brains—were the only parts of the umbrella manufactured on Earth. And wouldn't you know, those were the bits most likely to go wrong? This shouldn't be much of a surprise. There's not a lot that *can* go wrong, or wrong and fixable,

with a giant parabolic mirror, the structure 3D printed on a massive scale from lunar regolith, the reflective surface a polymer nano-layer not unlike Saran wrap.

It's the bucket-sized brain that we umbrella men had to fix most often and, when I say fix, I mean swap out. Difficult to do much else in an EVA more than a thousand kilometers above the Earth.

For the older umbrellas, those that were first to launch over a dozen years ago now, we also resupplied the propellant that maintains their altitude, despite the steady push of the sun. That, too, was sourced from the moon, from ancient ice lurking at the back of darkened polar craters or just beneath the lunar soil. Less polluting than getting it from Earth, which was why we were doing all of this in the first place.

So, whenever an umbrella brain started glitching, or even *looked* like it was about to, we matched its orbit and swapped out the all-in-one electronics for a new set, carting the busted unit for full diagnostics or possible repair aboard one of the two Space Stations.

I make that sound easy, don't I?

* * *

In the cramped space behind the cockpit, where we slept, and exercised, and yes, went to the toilet (a process that proved endlessly fascinating to my nieces), I ate a light snack, just enough to take the edge off.

Issy was staring out of the shuttle window when I rejoined her. We were above the ocean, the blue shrouded in wisps of white. "Any clues?" I asked.

"Turret," she said, still watching the world go by.

The turret was an umbrella's largest moving part. The concave shades, always pointing at the sun, directed the captured sunlight to the reflectors at the focal point of the shallow parabola. It was the turret optics that tilted and swiveled to send the beam of light to where it was wanted, whether that was in front of the dish, or *through* the turret to a similar set of computer-controlled reflectors on the reverse side. To switch from one set of optics to the other, the turret had to slide about ten meters. It did this twice every orbit, spending some of the time in forward position in Earth's shadow. Which was a good time to do core maintenance, assuming it could be finished in the thirty-five minutes or so of transit. We

could extend that by overriding the turret switch, working in the shade the umbrella provided. Unless what we were fixing was the turret itself. Then things got tricky.

"I'd best apply sunblock," I quipped, but Issy didn't return my smile.

"It looks like they're working *in* the turret." Every maintenance job was different, no matter that the umbrellas were theoretically identical, no matter that the fixable failure modes fell into distinct categories. This one was shaping up to be a real oddity.

While most of our work was done on the backside of an umbrella, where computers and other parts sheltered from the heat of the sun, there wasn't anything in the turret except a slender spire—a long pole, basically—that threaded through it and emerged from the rear, piercing the hole like a sewing machine needle. It was there to make sure the turret was perfectly aligned. There weren't any moving parts in the spire to bother with and barely any electronics, just a magnetic sensor that detected if it was off-true. It was a pretty cramped space for an EVA, no room at all for an MMU—a manned maneuvering unit—and somewhere I'd been only in a simulation.

"Have you spoken to them?" I asked.

"Not yet. I was waiting for you."

"How long to rendezvous?"

"Thirty minutes out."

I nodded. It took a good fifteen minutes to suit up, and though that wouldn't stop me listening into the ongoing conversation, I'd be focused on two things and neglecting both. Chat first, covering as much ground as possible, suit up after. "OK, let's call them up and see what's what. And Issy? Patch in command."

Always good to get another opinion, especially if there was a hot-head in the mix, even if Alexei was at worst only a lukewarm head.

* * *

The key to achieve net-zero, to decarbonizing the world, had turned out to be the energy density of renewables. How much land did you need to turn over to generate enough electricity to support our ever-growing needs? How much land that *wasn't* already being used for other purposes, like feeding our burgeoning population or regrowing forests?

We'd missed the 2050 deadline we'd set ourselves. But we *had*

made massive progress, and part of that was down to the umbrellas. Though they only deflected one thousandth of one percent of the sun's light from the surface of the Earth (meaning we'd need a thousand times the number of shades to negate mankind's influence entirely, which would take another twelve thousand years, unless we upped the deployment rate significantly), they *were* a step forward in the energy density issue.

Their reflective surfaces redirected the sun's rays to collecting stations dotted on the Earth's surface. Solar farms; either banks of thermophotovoltaics, or shallow lakes for photocatalytic electrolysis, or even arrays of mirrors with a steam turbine at their focal point. Different methods used in different countries, all boosted by umbrella light. It was like having a dozen suns in the sky instead of just the one. Umbrellas were in some ways even better than the sun: if the collection site was under cloud, the beams could be directed to one that wasn't. This was why the turret was key. That's where the sunlight was turned into a collimated beam and sent with AI-assisted accuracy down to Earth. The optics had to work perfectly. In the vacuum of space, heat was hard to shed, and even a small smudge or misalignment could result in massive failure, the mirrors warping and a turret quickly burning out.

It wasn't great for us umbrella men either.

* * *

"This is Beta Four, Lillian Wong at the con." That meant it must be Alexei on the EVA. "Glad to have you here to back us up."

"Copy that Beta Four. This is Issy Nwaigbo, with Sally Philips preparing for her EVA. Beta Four, ground control; what are we looking at?"

A moment of silence. Then: "I'll patch you through to Alexei for the latest."

There was a hiss and a click, the distinctive helmet-muffled sound of an astronaut. "Alexei here, EVA on umbrella two-seven-b. We have a seized turret movement, while tackling a minor buckle in the needle, incurred during a full maintenance rotation a month ago. The buckle is pretty much straightened out, but the turret doesn't want to move, sensors indicate it's slipped position. And I can't get any force behind it while trying to get it back into place, not without putting the buckle back in it."

It was a major problem doing pretty much anything in space:

there was nothing to push against. Getting any real *weight* behind something, when you were weightless, was tricky. Most of the time, you coped as best you could—torque was provided by pistol grip tools, for example, pressure by clamps. But straightening something out that was warped was close to impossible.

“Roger that, Alexei. How long have you been out there?”

“Two orbits. Heading towards four hours.”

That wasn't so bad; EVAs can stretch to six hours or even longer if necessary. But Alexei was no doubt tired and frustrated, working alone and struggling. “We'll be happy to help. Command, what's the recommended course of action?”

“Issy, Sally. This one's a bit tricky. Ideally, we'd rotate the umbrella again for you—”

“But that would take too long?”

“Correct, Sal.” Once things started to go wrong on an umbrella, you had to fix them quick, before the problem got “baked” in. There were a dozen umbrellas which, for a variety of reasons, could no longer provide a tight beam, and had been “de-turreted” as a result. They still did the shading, but it always felt like a failure. I didn't want to add a thirteenth on our watch.

“So, we have a rather unorthodox suggestion, courtesy of Alexei, with the details thrashed out by our engineers. Sally, this will be your call, if it doesn't sound do-able we'll probably end up scratching this umbrella. We want Beta Seven to do a peripheral approach, and for you, Sally, to do an occlusion EVA to the turret and, um, *push*, while Alexei pulls.”

There was silence as Issy and I stared at each other. It was one of the cardinal rules of umbrella repair: you never approached an umbrella “sunny side up.” Because that was one problem with an umbrella: you couldn't turn it off.

“Command? What are the timings on that occlusion EVA?”

“We calculate ten minutes to get to the turret. That gives you...”

“Fifteen minutes?” I interrupted.

“A little longer, Sally; nineteen minutes, if you start the journey immediately before full occlusion.”

That was hardly any time at all. Any delay and I'd be stuck in front of a very large, very on, sunlamp. It wouldn't exactly be like being an ant under a magnifying glass, as long as I avoided the main beam, but it was more than my spacesuit was rated for and

wouldn't be comfortable or, indeed, healthy for long, especially the closer I was to the umbrella center, to the turret.

“Command—” Issy leant towards the comms. “—what if I park the shuttle in an overlap rather than at the peripheral? Say, a hundred meters in? Beta Seven can take the punishment better than Sally can.”

“Uh, OK, let me just confirm...” There was a brief smatter of excited talk before someone hit the mute. Greg came back on a minute later. “Beta Seven, you are confirmed for a fifty-meter overlap. Repeat, no more than fifty meters. That'll give Sally an extra minute and save some MMU propellant. We don't think it should matter though—we think the turret will either budge quickly or not at all—but it's always good to have some slack, so thank you for the suggestion, Issy.”

She gave me a small shrug and I headed to the airlock to suit up. Mostly, you don't rush anything in space. Slow and steady, check and double-check. How many other rules were we, if not breaking, then bending, today?

As we waited for the damaged umbrella to dip into Earth shadow and Issy moved us into position, I thought of my nieces. They'd been so very young when I'd blasted into space. Too young, really, to understand what was going on. But they'd grown up a lot over the last three years, and were always excited to hear from me whenever I got the chance to video-call.

My sister worried about me, she probably kept better track than I did of the astronauts added to the memorial. But I made sure I kept things breezy whenever the nieces were online. It wasn't difficult. The twins were seven, and the older sibling just turned nine. It didn't matter how long it was since I'd last seen them, how long until my next R & R at Lunar Base, their first question would always be: “Have you seen the cat in the moon?”

The tabby cat, *Apollo*, was far more famous than any of us umbrella men. But then, there was only one of him. That we didn't make a splash on the news was because our jobs had become, if not commonplace, at least not remarkable. Barely anyone down on Earth knew our names or history, just the local newspapers where we grew up, and a few umbrella spotters. Most of them were harmless enthusiasts. A few were cranks with outlandish theories about what we were *really* doing up here, which were as impossible to disprove as they were to believe.

I made sure my nieces knew how important our work was. And, when people asked why I became an umbrella man, why I risked life and limb chasing shadows across the stars, I showed them that picture of those three nieces of mine, those three glimpses of the future.

* * *

“Two-minute warning, Sally,” Issy said. “We’re in position, waiting for occlusion. Oh, and I gave you an extra twenty meters, but don’t tell command.”

“Command here,” Greg cut in, neutrally. “We’re not saying anything either.”

There was another reason to be an umbrella man: they’re the best people there are. I was proud to be counted among them, even if it was a pretty short career. We get our lifetime radiation exposure over our seven-year tour. It’s one of the reasons there were more women up here than men. Men’s biological organs are somewhat more exposed. They’ve tried shorter tours, and they’ve tried lead underpants—and men could freeze their sperm, just as we freeze our eggs—but men do tend to get rather hung up over the whole thing. I guess it puts potential recruits off.

Some umbrella women extend their tours, and command are only too glad to accept an extra year or two from an experienced hand, but there are other problems besides fertility. For those—for bone density, especially as we got older—men have it better than women. So seven years was a pretty typical retirement age.

Much as I loved it, much as I saw the *need* for it, I already knew I’d be glad to return to Earth, to slowly rebuild my body, my strength, my life. To see my family, my sister, my nieces.

“Okay Sally, you’re good to go.” Time to get my mind back on the job.

The sun was still in view as I left the airlock, my helmet visor adjusting automatically. I was on the MMU, effectively a low-powered jet pack for space. Alexei must have docked his at the turret exit, the other side of the umbrella, near the electronic hub, as there’s no way it would fit in the narrow void he was working in.

The jets of compressed air weren’t very powerful; ten minutes to do five hundred meters isn’t even walking pace, but I was hoping they’d be strong enough to do the job Alexei was asking me to do.

I was used to approaching an umbrella from behind, where you can see all the limbs and branches, the spokes. Where you can see

how closely it mimics something natural and fractal and ethereally fragile, like the flower it pretended to be. Or the fragile skeleton of a flower. It wasn't designed to cope with any real stress; they lift them from the moon as gently as they can, and that's the limiting factor on an umbrella's size.

From the reflector side, it lost its organic look. It was like some gateway to another realm, a disquieting optical illusion, a wormhole in space, especially when I glimpsed the dark eclipse of the Earth reflected in it. It wasn't perfectly smooth; the reflective skin was stretched flat between each hidden moon-rock limb, so it looked a little like what the inside of a disco ball must resemble. It was vast, the largest thing man has put into space. Every time I remembered that, and I realized there were now close to a thousand of them in orbit, I was once again awestruck.

Alas, there was no time to enjoy the unusual view. I got about another fifty meters along the vast shiny crater before a black shadow, the edge blurred by Earth's paper-thin atmosphere, cut across it, heading rapidly and hungrily towards me. The wisps of atmosphere extend to about five hundred kilometers, enough to put a small but non-zero drag on even the lofty twin USSs. That's why the far bigger umbrellas were in higher orbit still, even if the energy transfer would be easier and more efficient if they were closer in.

I looked up to the black hole of the Earth as it gobbled up the bright sun. Even though we were in shade, it wasn't totally dark, light spilled around the edges of the Earth, my own personal dusk. I turned on the suit lights, watched them flicker across the reflective curved surface below. I wouldn't want to accidentally crash into what I couldn't see.

“Alexei, can we get the landing lights on the turret?”

“Roger that, Sally.”

The umbrellas were solar-powered; of *course* they were. A couple of panels fed a battery, to keep everything ticking over while in Earth shadow. Lights appeared like a slender arrow and I corrected my course, slowing my speed as I approached. There was a platform a little below the rear optics, where the service panels for the gears and motors that slide the turret back and forth were. Separate from the needle Alexei was trying to nudge back into true, and if *that* wasn't in place, then everything above would be off. Not by a lot, but by enough. I could feel the heat radiating from the cooling optics above me and wondered how much damage might

already have been caused.

“Sally,” Issy said, over the radio, her voice clipped as I reached the platform and began clambering down to the top end of the needle. “You’re on a timer. Eighteen minutes before you need to start your return journey.”

“Thank you, Issy. Alexei, are you in position?”

“Ready to push whenever you are.”

* * *

Pushing was the other thing space umbrellas could do. Just as they themselves needed propellant to counter the sun’s effects, the directable beams of light could exert their own pressure. There was a new generation of satellites that, once they were in Low Earth Orbit, unfurled solar sails and let our array of umbrellas nudge them into their final position, saving tons of rocket fuel.

The same technique was used for resupply trips to Lunar Base. And of course, the moon had its own set of umbrellas in lunar orbit. The nieces were delighted to discover we used umbrellas to push umbrellas; each new delivery from the moon factory arrived in Earth orbit on a sunbeam. Multiple sunbeams, actually.

There’s talk of using the umbrellas to nudge asteroids in near earth orbits into safer orbits, though there’s nothing currently in the high-risk category to worry about. Or coaxing our man-made space debris, created over a century of space travel, either into a decaying orbit to burn up in the atmosphere, or into a less troublesome graveyard orbit, to be dealt with, perhaps, at some even later date.

Someday, we’ll replace the simple umbrella optics with a solar-powered lasing tube, which will give the conspiracy theorists a real death ray to worry about. We could use an armada of laser umbrellas to push space probes to the outer solar system, past Saturn, where the sun is ninety times weaker. Perhaps, one day, we’ll even use them to kick-start interstellar travel. These are the first, critical steps. To control more than just the light that falls on the Earth, tapping into truly unlimited power.

* * *

“It’s moving!” Alexei crackled in my ear.

“Are you sure?” I hadn’t felt anything, hadn’t seen anything shift.

“Push again!”

I did, until my thrusters threatened to bounce me clear.

“OK...it’s moving, but *very* slowly.”

“How slowly?”

“I think it's shifted about...five millimeters?”

“And how far do we have to get it?”

“Down about twenty centimeters.”

“Twenty!” I whistled, heard the warble of feedback. “How the heck did it get that far out of true? Oh—a maintenance rotation? Never mind. Let's keep at it.”

“Sally?” Issy cut in. “If it's going at this rate...”

“I know, I know.” I clenched my teeth as the jets rattled them. “It's going to be tight, but we're not losing an umbrella on my shift.”

“Going to be *impossible*,” Issy muttered, but she didn't know the half of it, though it wasn't until I heard the warning beep that I realized either. I was blasting out my compressed air propellant with every millimeter-begrudging push. The MMU wasn't designed for what I was using it for, and they weren't really designed for round trips of over a kilometer either. I did a quick mental calc and groaned. I was going to be running on fumes well before I got back to Beta Seven.

I kept that to myself. “Let's see if we can't speed it up. Coordinated effort, Alexei. Each time I say pull, you give it a hard shove, okay?”

“Sally,” Issy said, stern voice activated. “You've tried your best. Time to head home.”

I ignored her. “How much further, Alexei?”

“Another four centimeters.”

“Didn't you hear me, Sally?” Issy's voice pitched higher. “You're *done*, get out of there, now.”

“Keep going, Alexei. On one, two, three...*pull!*”

“Wait...” Even Alexei sounded doubtful. “Don't you need to...?”

“*Alexei*,” I hissed, “if you don't pull, I'll need to push for even longer.”

“Damn you—”

“One, two, three...*pull!*”

It took a few—more than a few—concerted efforts before finally I heard Alexei gasp in relief. “There! It's in place.”

“Thank—”

“ONE minute to the end of collusion, Sally!” Issy was nearly screaming in my earpiece, cutting short any celebration. “Get clear of the turret, NOW!”

I jetted back, away from the turret lights, away from the shiny

structure, catching a glimpse of my lit-up MMU, distorted like a fairground hall of mirrors. I kept an eye on the air gauge, flashing angrily at me, and before I'd gone twenty meters, I reversed thrust to bring me to a halt, floating there in space.

"Sally...what the—?" Issy croaked.

"I'm not going to make it to you, Issy. I don't have either the time or the propellant."

"What?" There was a pause, as she brought up the feed from my MMU, saw the pressure gauge for herself. "Damn it, why didn't you... Stay there, then, I'll bring in the shuttle!"

"You'll do no such thing. You'd be placing it directly in the firing line."

"Then...*oh gods*..."

"Alexei, are you out of the turret yet?"

"Yes, Sally... You want me to switch to rear optics?"

"If you would be so good."

"That won't be enough, Sally," Issy groaned. "You'll avoid the beam, but even the reflected light will be—"

"I know, Issy, I know. You're going to have to trust me. Maintain your position." I looked over my shoulder, could see the thin blue line of Earth's atmosphere as it brightened. Another glorious dawn in space. To my left, the lights on the turret dipped as the now-working mechanism switched to the rear optics. Umbrella two-seven-b was operational. I'd done good.

A bead of perspiration floated free in my helmet. Trying to focus on it as it glittered momentarily distracted me from what was going on. How ephemeral everything was, how brief, how startlingly beautiful. I took a deep breath.

"Alexei, one more thing I'm going to need from you. Are you back to your MMU?"

On the far side of the umbrella, a bright flare snagged the edge, quickly expanding as it entered direct sunlight, the reflection throwing the silhouette of the turret into sharp relief. My helmet visor darkened automatically and kept darkening as I watched the light grow. Acres of light bounced my way—it wouldn't cope for much longer. Another warning light—temperature control—began blinking.

"Yes, but...?"

"Sally, five seconds until you're in full sunlight."

That didn't worry me half as much as however many seconds it

was before the entire umbrella was in full sunlight. "Alexi, get ready."

"4..."

"For *what*, Sally? Oh god, I'm so..."

"3..."

"Here goes nothing."

"2..."

"..."

Sunlight flared around the curve of the earth, thickening with every second until it was too bright for my visor to handle. Directly below me there was a reflected patch of darkness against the corona of fierce light surrounding me. My tiny, insignificant shadow. I closed my eyes and hit the thrusters, using up the small emergency reserve that existed even when the propellant gauge entered the red. One last-gasp burst, with no way of stopping once I started moving.

I felt a snag, an off-center tug as gentle as walking through cobwebs, and as I did, blissfully cool darkness overwhelmed me.

"Did you just...?" Issy hissed.

"You cheeky bastard...you were going to do that all along!" Alexi said.

I opened my eyes again. I was slowly spinning in the dark. I fired my MMU thrusters to level me out but there was no hiss, no push. No propellant. Nothing to do but turn, until I could see the dark shade of the umbrella that was protecting me from the scorching sun. And the gaping hole through the reflective nanolayer, twenty meters out from the stalk of the turret, where I'd burst straight through it.

"Appreciate a pickup, Alexei," I radioed, feeling giddy.

"But the struts..." he almost sounded like he was giggling. "If you'd hit one of them...how did you...?"

"I counted," I said. "Aimed for the space in between."

It was a disappointment that my exit hole wasn't the perfect cut-out of an astronaut in a MMU suit. But this wasn't a Tom and Jerry cartoon. The fabric had torn, rather than just been punched through, and would probably have to be tidied up on a subsequent maintenance run. And yes, the hole was closer to one of the main struts than I'd expected. My stomach churned at that.

Overall, though? A panel the size of a squash court was no longer doing its job. But the rest of the umbrella was, and that

wouldn't have happened if I hadn't done what I did. Back down on Earth, no one would care.

I did. I cared. I'd rescued a broken umbrella. And that was what we were up here for.

Command took a dim view, slapping my wrist for taking such a stupid risk, and rightly so. But it occurred to them that no one should ever have to approach an umbrella from the periphery. That a gap could deliberately be left in the reflective material near the turret, a gap big enough for an MMU to pass safely through. A sensible and perhaps obvious improvement. The only reason no one had come up with it before is that no one except me had ever *needed* it. So yes, fame, with a small f. I guess it's only right it's known as a *Philips Gap*.

With such a gap, umbrella men can do “sunny side up” maintenance in the short gap of Earth shadow, in occlusion, saving time and preventing costly and damaging maintenance rotations that probably caused the kink in two-seven-b in the first place. In the annual USS reports, there's a metric for how often the Philips Gap gets used. Sometimes the brightest ideas are kind of obvious, after the fact. But that was all for the future.

The umbrella spun lazily back out of view and I glimpsed the moon, and shuttle Beta Four, and a couple of bright lights headed my way—Alexei, on a rescue mission.

I hadn't thought this far ahead. Because I was out of propellant, Alexei had no choice but to return me to Beta Four. Which meant both service shuttles were out of action until my MMU was recharged, or, as happened, we could dock at the USS and sort out our uneven manpower issues.

And then there was a debrief, of course, on Lunar Base. The inquiry into whether I'd done the right thing, into what lessons should be taken from it. I had to apologize to Issy; she'd done nothing wrong, but we were a team, so she was grounded for the duration as well.

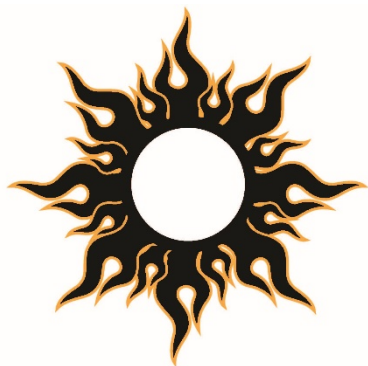
They did what they had to do, what I deserved: sent me Earthbound to lecture the next batch of umbrella men. Again, for the future. Up there, still turning, I felt exhausted, the adrenaline draining away, as Alexei hove into view on his MMU, grinning like a lunatic. He shook his helmeted head at me, astonished and mock outraged. “*Crazy English...*”

All I could think of, as we tandem-rode towards the safety of

the waiting shuttle, with command in my ears demanding to know what the hell was going on, was standing with my three nieces on a golden beach, feeling the warmth of the sun, the soft breeze, the sound of the ocean. A few years from then. Or a lot sooner, as it turned out.

I would hold their hands as the water lapped at our toes, and as a shadow flitted across the sun. A shadow that was helping my sister's kids enjoy the future they deserved, that we and our ancestors had almost ruined for them. A shadow that might one day help mankind reach for the stars.

A shadow, with a tiny, Sally Philips-sized pinprick of sunlight spilling from its heart.



THE ASTRONAUT

by Nicole Givens Kurtz

Tiny stabbing burned Mimi Washington's fingertips. A clear fiberglass door kept her from fully sitting up. The stasis pod reeked of antiseptic and cold. Great. Now her toes experienced the stinging, painful rush of blood flow. Pinpricks blanketed her arms and legs. Her one-piece uniform kept the cold at bay, but now that she'd been revived, her entire nervous system flared awake.

And she wasn't alone. Her shuttlecraft's computer erupted in a flurry of blinking lights, whirling, and wheezing. It sounded like a rusty water tap, coughing and spurting to bring itself online.

She pressed her fingertips to the fiberglass and pushed. To her surprise, it gave way and hushed open.

For the first time in thirty years, Mimi inhaled air. She took in a deep breath and let it out. What she breathed in tasted like ash and oil. Greasy.

The shuttle's air vents blasted out the last of their steam, the constant hiss of escaping smoke now gone. A gentle drip of water fell from the walls into puddles in the floor. The hissing of the smoke, combined with the occasional creak of the shuttle, rocked with each gust of wind. A sharp popping sound accompanied each of the small explosions of glass.

"Finally." She pushed herself to a sitting position. "Let's see what

NASA has to say. They're probably all ready to test and take samples, but what happened here?" What she really wanted to do was eat a nice, juicy hamburger, with bacon and cheddar, coupled with French fries and ketchup. Her mouth watered at the mental image. Motivated, Mimi pushed herself to climb out of the pod.

She hit the floor and collapsed.

Groaning, she massaged her legs with both hands. "Wake up, muscles. Come on. You got exercise in the pod. Blood circulated, albeit slowly."

She glanced around at the empty space shuttle. The shuttle's interior was coated in a mud of black goo that had soaked into her clothes. The greasy goo smelled like burned plastic and singed wires. Rainbow shards of glass littered the floor. They clung to the wiring and electronics' remains. The other three pod hatches hung open.

Where is everyone?

"Hey, Lancelot, where is the rest of the crew?"

The computer A.I., Lancelot, answered, "Commander Washington, the crew evacuated."

The hairs on Mimi's neck rose. "Evacuated?"

"Yes. Captain Tiffany Morrow, civilians Drs. Aaron Williams, and Natasha James evacuated on June 29, 2060."

Mimi's mouth went dry. She pushed herself onto all fours, then gently crawled back to her feet. They burned in protest.

"Lancelot, what triggered the evacuation?" She tried to swallow. All the saliva in her mouth vanished. She choked out a cough instead.

"Space Shuttle Discovery encountered a meteor at 23:00 on June 29, 2060. Critical impact occurred at 23:22. Captain Morrow awoke from stasis. Remaining crew members left their stasis pods at 23:30..."

"Why wasn't I awakened?" Mimi's stomach balled into a knot.

"Pod 4168 malfunctioned," Lancelot answered.

"And the others bailed, leaving me trapped," she said to no one in particular. Stunned by the betrayal, her eyes burned from the prick of tears. Lancelot couldn't answer her. He didn't know her shipmates' motives, only their actions. "Great."

She grabbed the pod's body to hoist herself to a standing position. With her hands stabilizing her, she inched around to the console beside it. Her heart sped up. She entered the date of the

incident and called up the video file. On the tiny square screen, footage played, revealing the crew's awakening, frantic attempts to open her stasis pod and their terrifying whirlwind after the meteor's impact. It tore part of the shuttle's nose off and sent them spiraling, according to a shouting Captain Morrow. She ordered them to the evacuation pods. They tried to unlock Mimi's to put it in the craft with them.

They ran out of time.

Mimi wiped her face. Her hand came away wet. "Right. Lancelot, where am I?" She couldn't stand here and weep. Time to get moving. NASA should've rescued her already. If they hadn't it could be because they assumed she'd died, or they couldn't reach her.

"Earth."

"That's a good start. Lancelot, where on Earth?"

"Greenland."

"The ice continent?" *Great, it's only marginally better than Antarctica.*

"I'm sorry. There is no ice in Greenland."

"What?" Mimi scuttled around the console to look out one of the undamaged observation windows. Outside, lush green trees and the tops of what looked like wind turbines created shade from the bright fall sun. She winced at the brightness but peered through slits because she couldn't help herself.

Nor could she *believe* it.

The valley lay nestled between hills whose bottoms were not visible in the distance. They rose and ended like a spine and ribs on a sea creature that had been fossilized over eons. In the far distance, to the west, giant wind turbines stood like sentinels. So far away, she envisioned she could squish them between her fingers.

"What the hell is this? Lancelot, confirm location." Mimi turned away from the window.

"Greenland."

She searched around the shuttle, noting the smoke damage and blackened front panels. Determined to get out, she picked up a small pack. With her mind racing, she stuffed it with small items that had avoided being burned or melted.

"Contact NASA headquarters." She would search the immediate area and then return to the shuttle when they arrived to pick her up. She paused, awaiting Lancelot's communication transfer to NASA. "Lancelot?"

“Searching.”

“What’s taking so long? What is the delay?” Mimi caught her bottom lip between her teeth to stop herself from hurling a series of questions at the computer—and to slow the panic crawling up her throat.

“I am unable to find a viable connection to NASA,” Lancelot said.

“Run self-diagnostic.”

There has to be an error. It was probably damaged in the crash.

“Confirmed.”

While Lancelot checked himself, Mimi picked up a pistol, a few bullets, and a hunting knife. A few plastic bottles of water, but they looked fuzzy and hazy. If nothing else, they could put out a fire or be boiled to eliminate any bacteria. She found an emergency medical kit and put it in the sack as well. Emergency rations completed the pack.

“Diagnostic completed.” Lancelot declared a moment later.

She let out a breath of relief and ran a hand through her hair. Mimi leaned back against her pod. “Lancelot, connect to NASA. Report my location.”

“Unable to connect to NASA.”

“Are you malfunctioning?”

“All diagnostics returned in proficient operational parameters.”

“Why can’t you connect?” Mimi barked out this last. Tears blurred her vision. Her knuckles ached from gripping the stasis pod. Her dribble of patience webbed out in the angry demand.

Lancelot replied, “NASA does not exist.”

* * *

The fresh air, dense forest, and noisy wildlife made Mimi jump out of her skin more than once. Having spent thirty years in the quiet hush of stasis, outside proved loud and unsettling. Part of her wanted to race back to the shuttle and await rescue. The other wanted food and to explore. After all, she’d become an astronaut to do just that. As a scientist, she noted the vibrant activity all around her—insects, squirrels, and birds aplenty.

Her boots crunched on the unfamiliar ground. Her gaze traveled from the green canopy to the dense forest ahead. Overhead, the sun beat down on the woods, its light shimmering in the air.

She heard whistling. Not a bird’s call, but a human sound. A song.

She adjusted her bag, feeling a slight chill in the air, and looked

out over the trees. She stepped forward slowly and raised her pistol. She flicked the safety off and pointed in the whistling's direction, her finger on the trigger, ready to fire.

Someone emerged from the foliage and stumbled right into her. She jumped back. He wore a green one-piece jumper made out of what looked like plastic and a floppy matching green hat on his head. He suddenly lurched forward. Mimi cried out in surprise and accidentally pulled the trigger. He fell to the ground with a thud, his body limp.

Mimi dropped the gun and rushed to his side. She quickly checked for a pulse. There was a faint one. Tears filled her eyes.

"Oh Lord. It was an accident. Where do I get help around here?" She scanned her surroundings again, her heart pounding in her chest. Her mind spun. She had no idea how to explain this to anyone, how to explain it to herself. All she could do was stand there, paralyzed with shock and guilt.

In the ensuing silence, the only sound was her trembling breath.

"Why did you?" the man wheezed, holding his side. "You could've killed me."

"It was an accident. Do you have a cell phone? I can call 9-1-1!"

He frowned at her and winced. With trembling arms, he brought his arm up to his mouth. He lifted his sleeve and showed an elaborate tattoo. It snaked down to his wrists in a series of shapes. Several dots blinked and the broad lines bore raised flesh, some type of scarring, but not exactly. He pressed them.

"Medics needed at these coordinates...shot...bleeding..." He wheezed and then passed out.

A voice squawked from the device. "Pablo? ¿Cómo estás?" The voice remained calm. "¿Cómo se llama?"

Mimi picked up his arm and leaned down to speak. "Pablo is hurt pretty bad. Can one of you get here soon? We're in a forest, I dunno where, but if you have geotracking on this watch, can you locate us?"

"Who is this?" the woman asked.

"It doesn't matter who I am, just get here. He's dying." Mimi placed his arm down and backpedaled away from him. She looked around and swallowed the knot of emotion and acid in her throat.

"Uh, Pablo, can you tell me where we are?" Mimi gently shook him to rouse him. "You need to stay with me. Okay?"

Pablo's dark eyes met hers. "Fénix Ciudad."

She sighed. He said it with such conviction, but he could've said MUD City and she wouldn't know any difference.

"Pablo, have you heard of Greenland?" If she kept talking, she could ignore the fear gnawing at her.

"Si."

"Is this Greenland?"

Pablo gave her a small smile—and a groan.

"I'm not from here, so try not to laugh at my silly questions." Overhead, she caught glimpses of blue sky. Crisp air, brilliant sunlight, and fat puffy white clouds poked through the canopy. She may have been in stasis too long because she'd never experienced this vividness.

"Ah, si."

She had to keep him talking. "What happened to the ice?" As a child, she found it humorous that Iceland was green, and Greenland was covered in ice.

"You want a history lesson." He tried laughing, but it rolled into coughs.

Mimi pressed her hand on the wound, keeping the pressure on.

"Yes." *How long have I been asleep?*

"Later."

She liked his spirit. He intended to live.

"You there, get back! Give us room!" someone shouted, spooking Mimi.

She turned in the direction of the voice. Two people on what looked like blue mopeds raced to the clearing and came to a frantic stop. The first off their vehicle was a woman. She shoved her helmet down, snatched a kit from her trunk, and hurried over to Pablo.

"I said back up."

Mimi nodded and scooted backwards. She stood up and walked away. *Please don't die.*

"Who are you?" *The other person climbed off his moped. His nametag read Fernando.* "Provide your identity."

Mimi fished inside her spacesuit, and then remembered she didn't have any identifying documentation on her. "Look, I work with NASA and my space shuttle crashed just over there. If you can give me a phone, I can call them..."

"A phone?" Fernando's bushy, black beard twitched as he frowned. "We haven't seen one of those in at least three hundred

years.”

“What?” Mimi blinked. “Three hundred years?”

Fernando gestured with his hand. “Present your barcode.”

“Wait. I don’t...I don’t have a barcode... Three hundred years? You said *three hundred years* ago?”

“Si. Trescientos.”

Mimi’s heart pounded and she felt faint. *No. Way. I’ve been in stasis not for thirty years, but three hundred?* She shut her eyes and swallowed the scream in her throat.

Another moped arrived and this time, it didn’t come with one person, but two. Dressed in dark blue uniforms, emblazoned with an owl signa, the two people wore batons on their waists. They headed in the direction of her shuttle.

“I’m Mimi Washington, former Commander of the Space Shuttle Discovery. My crew and I were sent to Mars in June of 2060. Our craft was impacted by a meteor and damaged...”

“Did you say 2060?”

“Yes...”

“Impossible!” Fernando shook his head.

“I...I woke up here,” Mimi said, her heart racing at speaking the words aloud. She stumbled, numb and out of sorts, but she didn’t fall. Her family. Her city. All gone now. Lost in the sands of time. She doubled over as bile raced up her throat.

Fernando stepped back. “Are you sick? Medic!”

“No.” Mimi took several deep, steadying breaths before standing back up.

Just then, one of the blue uniformed persons appeared inside the clearing. His dark eyes beamed from underneath thick eyebrows mashed together in one long caterpillar. “Sir, her vehicle has rocket fuel.”

Fernando turned back to Mimi. “That’s a highly dangerous and illegal substance. It’s in violation of the Banned Fuels Act.”

Mimi held up both hands. “Look, I told you. Three hundred years ago, it was perfectly fine to use rocket fuel. It’s how we got to space...”

“You’re being detained. No identification, possession of a forbidden fuel, and you shot a citizen.” Fernando took her wrists and bound them with rope. He snatched the bag from her and looked inside. He yanked out a plastic bottle of water. “This. You have water in plastic! PLASTIC! You are a dangerous woman.”

Mimi looked at the rope and back to Fernando in panic. "What? Didn't you hear me? I'm from the past. I was in stasis for three hundred years and woke up here. How can you hold me responsible for something that happened so long ago?"

Fernando quirked an eyebrow. "I don't believe you." He looked at the other officer. "Finish sweeping the vehicle. Send me the report. Strip what we can recycle and get Public Safety out here to remove the fuel."

"No, don't destroy my ship!" Mimi watched as the officer left to complete his orders. The last bit of her home was going to be stripped down to nothing. All of 2060, all of *her*, her dream to see the stars, to colonize Mars, to discover new civilizations and build a better Earth, was going to be stripped away.

"Stop! No!" She screamed and started toward her space shuttle.

She got a few paces before sharp pain flared in her neck and her vision tilted as she crashed to the ground. She needed to remember, she'd just woken up from stasis. Her body wasn't at 100%.

Someone, probably Fernando, snatched her up by her bound hands and yanked her backward. With her head throbbing and her neck aching, Mimi was placed on the back of a moped, the same one the two officers had arrived on.

Fernando pushed a helmet on her head. "Don't do foolish things like running or jumping off. You'll only injure yourself."

"Where are you taking me?" Mimi's eyes watered at the pain, both physical and emotional.

"To Secure Holding," Fernando said.

"Is that jail?"

"Jail? Such an antiquated vocabulary." He shook his head and slipped his helmet on. He climbed onto the moped, placed his hand on a screen that lit up. The vehicle started. Mimi shrieked when they started without any ignition sounds.

They took off along the forest path.

Three hundred years. Could it be possible? She could hardly believe it herself, but the truth ached in her heart.

Fernando didn't speak. She could hear him breathing through the embedded microphone in her helmet.

"Why is rocket fuel forbidden? How do you get into space?" Mimi held the u-shaped bar in front of her seat. It kept her from sliding off the moped. For all their technology, why use cotton rope?

“We don’t go to space. No need. Earth is more than accommodating for people, as long as we treat her right. Three hundred years ago,” he said, his words mocking, “the world’s abuse of fossil fuels created...ah, a climate crisis. Antarctica, the Arctic Circle, and Alaska all experienced ice melting. While nations waited, communities organized and combined efforts to slow the crisis and halt it. One of the ways was banning those dangerous fuels.”

“That also meant abandoning humanity’s goal of going to the stars, finding other planets, and other civilizations.” As an astronaut, her heart broke even more at the news. “Didn’t anyone want to dream big, reach for the stars?”

Fernando grunted out a laugh. “So we can go and abuse another planet or ruin another civilization? According to history, our ancestors were terrible at dealing with other humans, let alone some alien creatures on another planet. No, we kept our eyes on the ground, and concerned ourselves with bettering our planet and ourselves.”

Mimi couldn’t deny the history of human malice, but to not even try to shoot for the stars? The thought broke her. Warm pinpricks of tears came and she let them fall. How was she, an astronaut, going to fit into this future?

What am I going to do?

Being a prisoner wasn’t on the list.

They exited the woods. In the distance, civilization appeared. Mimi gasped in awe at the sight of Fénix Ciudad. The sleek bullet trains that sped across the city on elevated railings reminded her of space travel, but the towering buildings were somehow different. They had been covered in lush greenery, taking her back to her childhood memories.

“Wow. Are you living in a jungle?” Mimi said.

“Jungle?” Fernando snorted. “You really are ignorant. The buildings are biophilic. They reduce the need for air conditioning. They helped combat climate change and global warming. The plants act as insulation and protect the building from sunlight. This helps reduce the amount of energy consumed.”

Mimi nodded. She’d heard of biophilic buildings before, but an entire city of them? “Are other cities like this?”

“Si!” Fernando said.

Mimi wiped her brow. Sweat covered her face. Gobsnacked, she

struggled to take in the thriving metropolis before her. “Where are the cars?”

“Cars?”

“Yeah, automobiles?”

“No cars. They are in museums.” Fernando gestured to a row of bicycles lined along a rack as they drove past. Unchained, they appeared to be available to anyone.

Mimi let out a nervous chuckle, feeling overwhelmed, unable to comprehend how a city could function without cars. She felt dizzy and confused. She struggled to reconcile this advanced city with her memories. Her head spun at the enormity of it all.

Her view tilted. Beautiful mountains, cornflower sky, and then a rush of nausea.

“You okay back there?” Fernando’s demands melded into rapid Spanish.

No, Mr. Officer. I’m not anywhere close to being okay.

* * *

The Secure Holding Unit building, like all those around it, was adorned with vegetation and big windows. Fernando helped her off the moped and guided her up the flat, stone stairs to the front doors. They swished open and closed quickly after she cleared the threshold. Warm air brushed her sweaty face. Natural light streamed into the structure, and the scent of flowers merged with the gurgle of running water and bees’ buzzing. It didn’t resemble any prison Mimi had seen before, but after so much time, prisons would get sweeping changing as well.

“Fernando, new guest?” A woman dressed in the same type of uniform as Fernando and the other officers sat in front of a projected window. With a gloved hand, she swept through the screens. “What’s the name?”

“No identification, numerous environmental infractions, and she’s lying,” Fernando answered in lieu of greeting. His beard twitched as he cut a glance at Mimi and then back to the woman at the desk.

She quirked an eyebrow. “No identification. That’s odd.” She looked up at Mimi as if seeing her for the first time. “What’s your name?”

“I’m Commander Mimi Washington of the National Aeronautics and Space Administration.” Mimi stood taller and hitched her chin up. Sure, NASA may be dead, but she doubted it didn’t make the

history books or whatever they stored information on.

“Mimi Washington, you are hereby committed to the Secure Holding until such a time your case can be reviewed by a court officer and be presented before the judicial committee,” the woman said. “Now, please go with Officer Marsh.”

Fernando juttied his head at her. “Adios.”

Officer Marsh grabbed her ropes and tugged her in the direction of what had to be the processing center of the holding cells. They entered a room with a window, a chair, and a table. *Maybe I gave them too much credit. This looks like every other prison cell.*

Marsh patted her down and removed her rope. Mimi rubbed her bruised wrists.

“Sit down. The medic will come to check you out and I’ll move you to the holding cell,” Marsh said. He had a deep voice and a youthful face.

The door hushed behind him, but only a breath later they slid open again. A woman walked in, dressed in a light blue one-piece uniform with silver tone buttons. The pants were the same material and color as her top. It looked like it was made out of the same material as the police officers’, but her demeanor was completely different—warm, interested.

“Here. Drink. Water.” A round blob with a clear liquid inside jiggled on her open palm. The nurse pursed her full lips. Her dark brown eyes softened. She patted Mimi’s hand. “My name’s Kenya Rodriguez. I’m a nurse here and I’ll take care of you. You speak the old tongue?”

“The old tongue? You mean English? Uh, yeah. Yes. This is water?” Mimi peered at her.

She nodded and mimed how Mimi should consume it. Mimi followed her movements, lifting the water bubble to her lips and pushing it in. The moment she did, the outer layer dissolved and water flooded her mouth. It refreshed her. Before she knew it, she had her hand out for another one.

Kenya laughed and took one out of her pocket. “You’re probably dehydrated—and malnourished—judging by your skin and eyes.”

Mimi’s cheeks warmed in embarrassment. *Water never tasted like this before.*

She handed her the water blob and began setting up an IV. “These fluids contain vitamins to build your immune system as well as probiotics. This is portable, meaning it goes where you go. I’m

attaching it to your skin with these suction cups. Be careful when removing your clothes. Where you're from, you've seen these before. Right?"

"Yes."

The resources for their mission to Mars were only supposed to last thirty years. When the others evacuated, Lancelot must've routed the remaining nutrients from the other pods to hers. It slowed enough to keep her alive.

"How's the man I shot?" Mimi asked.

"You mean Pablo? He's fine, but probably sore. It's funny. He asked about you, too." Kenya swabbed her arm with an alcohol pad. "Here goes the intravenous line."

The tiny pinch caught Mimi's attention, but only for a bit. "Why was he asking about me?"

"I don't know. Is there someone we can contact? I apologize. You don't have a med file or any information on you." Kenya shook her head. Her gold earrings shone in the sunlight. The room was so bright.

"There's no one, now. I'm not from here," Mimi muttered. "Can I get something to eat?"

"Yes, of course. Once you get to your assigned room, the guards will give you a menu to order food." Kenya held her tablet. The short sleeves revealed green tattooed glyphs. They lit up on her hand and traveled along her forearm, blending with her warm brown skin.

"I can't believe all this," Mimi said. She stood and shuffled over to the sole window, her portable IV still attached, while Kenya entered information into a tablet.

The view took some adjusting. No cars. Biophilic buildings everywhere. Solar panels galore and bicycles aplenty. Walkways, footpaths, and covered bridges dotted the area surrounding the Secure Holding, beneath her window.

"You know my father used to say once fruit has rotted, it can never be ripe again."

"Life is not fruit," Kenya replied.

Everyone Mimi'd ever known was dead. She'd lost everything. Her dream to come home had become a nightmare. She hugged herself and turned away from the foreign environment.

"I'd volunteered to travel to Mars, millions of miles from the Earth, to a completely alien world, but it seems all I had to do was

wake up—three hundred years later.”

Kenya glanced up from her tablet. “Typing is such an old-fashioned way to enter data. Why don’t you have any connectors?”

“Connectors?”

Kenya gestured to her arms. The glyphs blinked.

“I’m not...”

“...from here. I know. Where are you from?” Kenya lowered her tablet. “There’s no record of your DNA on file.”

Mimi put her hand into her pockets. The IV pinched. “I’m from Chicago, a city in the United States. My name is Mimi Washington.”

“Where’s that?” Kenya hugged her tablet to her chest. “Chicago.”

“North America. Do you have a map? I can show you.” Mimi couldn’t believe the nurse didn’t know the U.S.

Kenya handed the tablet to her. She called up a 3D illumination of the world. “Here.”

Mimi knew how to use this tablet. It was similar to the displays she’d trained on before the mission. It hadn’t changed all that much, except it ran on solar power. She spun the image until she reached North America. The continent looked different from what she remembered. For starters, the coastlines had dissolved on both the east and west coasts. California and the Carolinas were gone. Where Panama had once connected the two bigger land masses, there was now a wide swath of water. She realized the glacial ice must have melted and the cities below sea levels had suffered.

But the country? The nation being gone—a superpower, the cradle of democracy, suddenly winked out—didn’t feel right.

“There’s no U.S.” Her heart sunk. DC and Florida were missing too. This was why Lancelot couldn’t connect to NASA. Suddenly, the weight of it all knocked the wind out of her. She’d been ready for Mars. She’d had a crew, years of prep, data from the robotic rovers to equip herself.

Nothing had prepped her for being stranded 300 years in the future.

“I’m a rational person, a scientist, and this confuses me. Where is my home? What are these clusters?” She couldn’t bring herself to meet Kenya’s gaze. The zoomed global image showed all the titles of what must be new countries that had risen in the wake of the former United States. Where the heck was Midland, Sunspot United, and one place called Coastals? Mimi sat down on the room’s sole chair. “I’m stuck here.”

Kenya collapsed the image and took the tablet away. “Yeah. You shot someone and you don’t have identification. You’re not going anywhere anytime soon. Rest. Take deep breaths.”

“There’s only a handful of smaller countries?”

The realization weighed on Mimi like a brick—no, a cement block—on her chest. The tightness forced her to breathe in sips. *How could this happen?* Alone, in a foreign future, Mimi balled herself into her grief. She let it come. Kenya kept her hand on her back.

“It’s okay. Breathe. Slow. Deep.”

Rapid Spanish exploded through the room. Mimi bolted upright.

“Fernando, please!” Kenya left her to address the bulky man banging through the door.

Mimi scooted back from Fernando’s presence. Thin lips peaked below a heavy moustache. He was a head taller than Kenya, who slipped by him. He came closer to her.

“Why isn’t she already in a cell?” He looked back at Kenya.

“She’s clearly distressed and dehydrated. She has minor injuries, and your report mentioned a crashed vehicle. Now may not be a good time to question her.” Kenya tugged on his arm.

Mimi watched this exchange with unease.

Fernando shook her off and then turned back to Mimi. “Who are you, really?”

“I’m no one.”

Fernando peered at her. “Everyone is *someone*. All citizens have an origin city.” He rolled his eyes over to Kenya. “Are you done? I need to move her to her cell.”

Kenya inclined her head. “Sure, I can swing by and pick up the IV when it’s done.”

“Officer Marsh! Let’s go.” Fernando called.

Marsh came in a few moments later and beckoned to Mimi to follow him. “I’ll escort you.”

Mimi followed him out into the corridor with the portable IV attached to her arm. Just before the door hushed closed, she heard Fernando say, “She’s dangerous, Kenya. She was using *rocket fuel*!”

Mimi closed her eyes. Why couldn’t he believe she’d been in stasis for 300 years? Sure, it sounded unlikely, but that didn’t mean it wasn’t true.

Marsh allowed her into a room, not unlike the one previous, except this one had a sofa bed, flat pillows and folded bedding. The

table, the bed, and the chair had all been attached to the walls, but appeared to be made of sustainable materials. A tiny toilet and sink were in a smaller alcove. Definitely a room for one, but she had a skylight, too high to reach, even with aid of the chair and table combined. More natural light from a thin window streamed in.

“Dinner is served in about an hour. There’s a communication tablet on the wall. You can call for medics or order food. Questions?”

So many. Mimi thought, but instead said, “How long before I see the judge?”

Marsh frowned. “The judicial committee, you mean. Usually two weeks.”

“That’s fast.”

“It’s actually slow because two of the committee members have been sick.”

Mimi sat down in the chair, her mobile IV unit attached to her arm. “Oh.”

“You’re not from here, are you?”

“Why do you say that?”

“You don’t seem to know how things work around here. Anyway, rocket fuel? No barcode scanner. Everybody has either a scanner or the glyphs. It’s odd.”

Mimi grimaced.

Marsh left. The door hushed closed, and she knew it wouldn’t open again without proper authorization. Gone were the iron cells and thick metal keys. It didn’t matter how nice the prison, it was still a cage.

Her stomach growled. She swept left on the tablet and the lunch meals appeared. It was all Spanish, so Mimi tried to decipher the choices from the pictures. One thing was certain—no burgers. Well, none she could recognize from all the greenery.

The door opened again and in walked Kenya. “Are you settling in?”

“Trying,” Mimi said with a small smile. Kenya had the type of personality to make her feel less like an outdated item and more like a person. “Um, do you have steak? Chicken? Hamburger?” Mimi tapped on the screen with her finger. “These all look like salads.”

Kenya walked over and looked at the menu. “Meat?”

“Yes!”

“No meat.” Kenya smiled and patted Mimi’s hand to console her.

“No meat?”

“It is banned in Fénix.”

“Banned?” Mimi shook her head. *What else is wrong in this future?*

“Yes. My favorite is this one. You know kale? Red beans? Crispy tofu? So tasty.” Kenya checked her IV.

Mimi shook her head. “Why would you outlaw meat? Cows aren’t dangerous.”

“Eating and cooking beef are banned. There are a small number of cows for milk, but we use a range of diverse milk—goats, etc. The volume of methane gas they produced contributed to the climate crisis. Do you have cows in your city?”

“Yeah. We did.”

At this point, she’d eat anything. Her stomach grumbled in agreement. Her body craved real food. Not that tofu equated to food, but it was edible. Mimi pressed the selection button. “Hunger makes the best spice. I’m sure it will be delicious.”

“Is that another one of your father’s saying?”

“Yeah.” Mimi hugged herself as the cold realization she wouldn’t be able to see him again hit home.

“Tofu’s not so bad.” Kenya dug into her deep front pocket and produced a water bubble. “Drink this.”

She accepted it and drank. Water. “Thank you.”

“I’ll remove your IV and then you can try to rest.” Kenya put on her gloves.

* * *

Mimi awoke with gummy eyeboogers and a familiar burning in her left arm. She touched the spot where the blasted IV line had bruised her. Her tenure with NASA had made her quite familiar with them. Each time she’d woken up, she’d been in a foreign place. The routine was getting old.

“You have a visitor,” a firm female voice said. Kenya was back. “Does that hurt? Let me put an ointment on it.”

“Okay.” Cottonmouth made her cough. “A visitor? No one knows me here.”

“That’s what the guard said. Put on some clothes, drink your bubble, and let him know when you’re ready.”

After Kenya checked her vitals and left, Mimi splashed some water on her face, brushed her teeth with the supplied toothbrush and paste, a small circular tablet, and headed out to meet the

visitor. It wouldn't be Fernando as he could clearly move about the place without restriction.

No. This was someone else.

She didn't know a single person in this future.

Then who?

As she exited, a guard greeted her with a head nod. "This way."

Mimi noticed the guard carried a baton of some sort, but no gun. Maybe those were banned, too. At least they got that right.

She followed the guard along the path from yesterday. It led to the front of the building, where Mimi was processed. They bypassed the processing rooms and made a left into what looked like a cafeteria. Tables and chairs spread out in a large open area with floor-to-ceiling windows.

"Number 12," the guard pointed with a gloved index finger.

Mimi noticed one of the tables had an illuminated 12 projecting up from its center. Seated, with his hands tented in front of him, was the man she shot yesterday.

"Pablo?" Mimi couldn't believe it. Why would he come to see her and how on earth was he well enough to do so?

As she approached, he stood up. With his floppy hat, he looked ready to go hiking or fishing. His mauve shirt and matching pants looked like a uniform—block color, like all the others' clothing.

"Hola! I'm Pablo." He bowed at the waist.

"Hi, I'm Mimi." She bowed, too, following his lead.

"Please sit." Pablo gestured to the seat across from him.

"Why are you here?" Mimi asked. "I shot you."

Pablo nodded. "Yes, but it was an accident..."

"How do you know that?" Mimi couldn't keep the incredulous tone out of her words.

Pablo said, "I could tell something had crashed. When I first saw you, your face bore scratches and tiny cuts, and your hair appeared wet. But it was your eyes that told me the truth. Big and rounded with fear. When you shot me, it wasn't intentional or meaning to harm me. It was reflex from being afraid."

Mimi swallowed. *Who is this guy?*

The light accent on his words meant English or, as they called it, the Old Tongue, wasn't his first language. It didn't matter. He'd gotten right to the point.

"I'm an astronaut. My space shuttle crashed here, and I woke up from stasis..."

“Si! Three hundred years later,” Pablo said. His watch projected what looked like a screenshot of Mimi’s face, along with the rest of their crew members. “I found this in our historical archives. *Discovery* was sent to Mars but encountered some asteroid or meteors. It was considered a tragedy.”

“This is proof! Proof that what I told Fernando was true.” Mimi’s heart raced in excitement. Finally, someone would be able to set her free!

“I have shown this to him.” Pablo dropped his gaze and extinguished the projection, along with her hopes. “He feels you are too much a danger. You may have diseases we no longer have any immunity for and your viewpoints are from a time when human beings cared little about the earth and our climate. You could taint or encourage subversive thoughts and ideals we have long since outgrown.”

“I...would adapt. That’s what humans do best. I’m a scientist. I pose no danger to anyone...” She realized the irony of her saying this to a man she had shot.

Pablo smirked. “It is his fear. It clouds his judgment. He lacks empathy to see how you, an individual, cannot pose a threat, because it was individuals who failed to act when our world was in crisis. What he doesn’t remember is all the people, the individuals, who did come together, in communities across the globe to fight and work for solutions. Those solutions we are using today.”

“I’m not getting out of here, am I?” Her shoulders slumped.

Pablo leaned forward. “Yes, you are.”

“How?”

“One of the things we do here is provide equitable and humane living conditions. You are here, being detained yes, but there is nothing keeping you from walking out the door. Your situation is unique and we do not have a way of actually dealing with it.”

Mimi looked around and noticed guards and surveillance cameras. “We’re being watched.”

“Yes, and recorded. I have a moped charged and ready outside. You can run now, get on it, and drive out of here. There is a place I know, Fénix Cloud. I programed the directions into the moped. It is a tiny village, but they do not ask questions about your history, only if you will contribute to the community,” Pablo said. “It is where I grew up.”

Mimi’s heart thundered in her chest. A prison break? Ever since

she'd opened her eyes yesterday morning, nothing had been normal or real. *I guess this is my new normal now.*

"What about me being a danger, with diseases, or not having identification?"

Pablo nodded. "Once you get to Fénix Cloud, tell them you need to be inoculated. They will take care of it."

"Why are you doing this?" Mimi asked. "I could've killed you."

"You did not. You were afraid, in a new place, and you needed help. You still do."

"But why?" Mimi frowned. His kindness confused her. What did he want from her in return? "I don't have any money or anything to pay you for this."

Pablo laughed. "Pay? You have so much to learn. No one pays for anything. Capitalism died out a long time ago. Here, we share, give, work because it is best for everyone, for our society, not to collect things or craft economic craters."

Stunned, she sat with her mouth gape. No capitalism. What in the Gene Roddenberry was this?

"I will distract your guard. You run, full out. It's the black moped parked closest to the lot." Pablo stood up. "Wait for my signal."

"Don't I need a key?"

He laughed again. "No. Once you put your hands on the handlebars, it will turn on. Press the flashing green button, and off you go."

"How do you stop people from stealing it?" Mimi stood up, too. It signaled the guard to walk over to them.

"It doesn't. But if people want to borrow it, they can. I have another." Pablo shrugged. "There are community mopeds and bikes, bullet trains and busses. It's never been a problem. Remember, we share."

"Mimi Washington," the guard said once she reached table 12. "Let's go back to the room."

Mimi glanced at Pablo, who stood closest to the guard. "Okay."

The guard waited for her to walk first, and she fell in directly behind her. Pablo took up the rear and the three of them made their way out of the cafeteria/visitor room area. They reached the fork where Pablo was supposed to go toward the front exit and Mimi and the guard back past the processing room and on to the holding cells.

"Guard, I have left something. I need to go back," Pablo said.

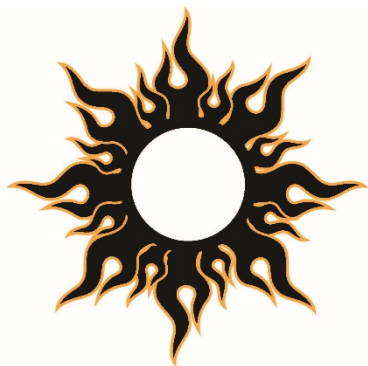
Mimi took her shot. She swept her leg out hard against the guard's ankles. The surprised guard thudded to the floor. Mimi ran as fast as she could toward the door. Pablo started behind her.

The guard, stunned, shouted, "Stop her! Prisoner attempting escape!"

Mimi reached the doors, but they didn't open. They wouldn't for anyone not cleared to leave the building. Pablo arrived a breath after her and the doors opened for him. Mimi nodded a fast thank you and raced outside. She could hear commotion behind her, but she didn't dare look back.

Her blood roared in her ears and her heart hammered like a freight train. She'd never done anything like this in her entire life. She found the black moped with ease. All the others were in some shade of blue. With her mouth dry, and her hands trembling, she climbed on board, grabbed the handles as Pablo had instructed and it started up.

True to his word, Pablo had loaded in the GPS directions to Fénix Cloud. Mimi pressed the green button and shot off into her new future.



HEMINGWAY VERSUS THE STORM

by Christopher R. Muscato

Hemingway licked his thumb, a sure sign that there was trouble ahead.

"I don't see anything," Thomas said as he scanned the weather maps, eyebrows furrowed in recognition of his companion's insight. He turned in his seat.

"Hemingway thinks there's going to be weather," Thomas stated, matter of fact. Thomas' father glanced out the window, looking up at the sky.

"Let's hope he's wrong."

Admittedly, Hemingway was rarely wrong. But it did happen. And today would be a good day for such an error in judgement to occur. After all, it was a market day.

"Can't tell us anything more?" Thomas implored Hemingway. The cat responded by stretching out his toes, tips of claws extending through the furry mittens, and yawning. He licked his nose and sneezed. Thomas didn't know exactly what that meant, but it didn't seem to be an omen of doom. In a near-perfect imitation of Adrian, his father, Thomas squared his jaw and tilted his head forward to scan the troposphere. It was a beautiful day. He sat back and nodded, satisfied that the skies posed no clear threat, caught up enough in his own meteorological assessment that the soft,

affectionate chuckle from his father went unnoticed.

Hemingway, however, did notice and flicked his bushy tail in an act of comradery.

The view remained unimpeded by cloud or storm as they sped along, blue skies stretching as endlessly as the sea, carrying them forward. And before long, their destination was in sight. Thomas pressed himself against the window, eyes wide. There were many things he enjoyed about his life as a farmer. The quiet time spent among the stalks and leaves of their crops, feeling his hands in the soil, savoring the bounty that came with their labor. But even among those delights, there was something special about the feeling of watching townspeople celebrate their approach. Out the window, although still a ways away, Thomas could see the gathering crowds, sense the swelling energy. Hemingway seemed attuned to it as well, rubbing against the window in anticipation. It seemed that this entire community had congregated for the occasion. There was something about a farmers' market that always brought folks together.

"Thomas, prep the landing sequence," Adrian instructed, flipping switches on the control panel as several lights began to blink, each punched in succession. Thomas set to his chores, typing commands into various systems. Hemingway did not assist in these chores, having learned through repetitious scolding that the stepping on of buttons was not part of his expected duties. So, instead he stretched across the top of the console, ears flicking at the buzzing of systems and machines responding to the commands of the central console as the airship began its descent towards the village below.

* * *

From the perspective of those on the ground, few spectacles were quite as exciting as the arrival of the airships for the farmers' market. The villagers watched in glee as they descended, each appearing from a different direction. One emerged dramatically from a cloud, another materialized from the infinite blue overhead as it slowly, deliberately fell to the earth. Others mingled among the dirigible wind turbines surrounding the village, weaving in and out with rhythmic precision.

As each anchored, securing a place within the growing circle of airships, doors and windows burst outwards, and suddenly the prairie was flooded with the crisp smells and bright hues of fresh

produce. The market was open.

Within moments, Thomas' world became a blur of colors and sounds. He helped his father tether the airship, relishing in the warm air, unseasonable for this late in autumn, a light breeze skirting over the plains. Around him, people laughed and sang and haggled and debated and conversed. There was music and dancing, pointing and gesturing. Goods and services were exchanged for fresh produce. An offer was made, a counteroffer, an agreement sealed with a handshake. Thomas zipped back and forth between the storefront and the storage units, snatching special orders or refreshing popular items, occasionally climbing up into the greenhouse to procure a specific vegetable or mushroom or fruit that someone wanted to inspect before purchasing in bulk.

As was customary for such events, many townspeople wanted to tour the farm and during these times Thomas was left in charge of the storefront while his father guided the interested parties through the storage units and cellars on the lower decks, up through the levels of greenhouses that were stacked vertically within the airship. He showed off the AI units and drones that did most of the physical labor, highlighting the innovations and programming he had personally made, but was also sure to demonstrate his own skill as a farmer, inspecting leaves for mites and checking hydroponic tanks under the enthusiastic gaze of spectators. People wanted to see where their food came from, they wanted to see the farm in action.

And they wanted to meet Hemingway.

"Midwest Coon? Polydactyl?" one townspeople asked, nodding to the bundle of fluff occupying the largest patch of sunlight filtering through the canopy over the storefront. Hemingway flicked his thick, bushy tail with the characteristic orange tuff at the end.

"Naturally," Adrian replied with a grin, handing the man a bundle of mustard greens. Thomas retrieved Hemingway, who did not protest but also decided it was not worth the effort to maintain a rigid form and thus draped in Thomas' arms like one of Dalí's clocks. Thomas lightly squeezed on Hemingway's thickly padded paws and the cat stretched his digits, expanding his claws so that the visitor could count them. Seven toes on one paw. Eight on the other. A pronounced thumb-like digit on each. Midwest Coons were preferred by many airship farmers, bred specifically for their

polydactylism, which improved balance and agility, as well as their highly sensitive whiskers and other senses that made them seem almost supernaturally attuned to the gardens. No airship farm was complete without a resident ship's cat, and few people would trust a farm that failed to display its cat proudly on a market day. This was a sure sign that the farm's operations were in good order.

* * *

By the time the market closed that evening and the sun dipped behind the purple mountains looming in the distance to the west, the storerooms of Thomas' family airship had nearly been emptied. It was a good day, a productive day.

From the lawn chairs set in the cool grass outside their airship, Adrian gave his son a gentle nudge. Thomas looked up from Hemingway as his father nodded subtly to the crowd, then winked as a little girl with black braids smiled and waved. Thomas blushed and buried his chin in his chest, focusing even harder on the cat purring in his lap. Adrian chuckled.

"Adrian! Thomas! Good to see you!"

"Hernán! Pull up a chair, brother!"

Thomas smiled as his father's friend snapped open a lawn chair next to theirs, stretching out his limbs and sighing.

"Almost makes you want to become a sed, doesn't it?" Hernán jerked his head at the crowd as he distributed a few cobs of freshly roasted sweet glass gem corn, a specialty breed of Hernán's floating farm. Thomas took a bite of the juicy and opulent kernels, surveying the community before them. Soft fires flickered around the edges of the gathering, drums and instruments beat out a lively dancing tune, small puffs of smoke rose from the grills where food from the market was being cooked for hungry crowds. Beyond this clearing, Thomas could see lights turning on in some of the houses in the village, small cottages speckled across the plains, steadfast abodes in a sea of swaying prairie grass. The dancing glow of the fires reflected off the occasional solar panel on a roof or slow turn of a wind turbine. The beeping of drones and bots completing final chores in the gardens melded with the rhythmic anthem of crickets pulsing through the warm, humid evening air.

"A farmer's life is in the sky," Adrian replied, a soft chuckle on his breath. "You know that well as I. Townsfolk like these can keep their little subsistence gardens and sedentary lives, and we'll keep roaming that wild blue yonder to grow the rest of their food."

The conversation went on like this for some time and the burning sunset melted into softer and softer hues before being enveloped in blue and black, glittering specks of light poking through the darkness and twinkling in a dance all their own. They talked about the weather, as farmers are often known to do, remarking on what a warm and yet wet autumn it had been, grateful that the storm they predicted earlier that week had lingered over the distant mountains rather than thundering over the plains.

The fires in the clearing grew smaller, and so did the crowds. Finally, Thomas' father stretched out his arms with a yawn and all agreed that the evening had come to an end.

"Hernán," Adrian said suddenly, as his fellow farmer packed his folding chair and started the leisurely meander back to his airship. Hernán turned, eyebrow raised.

"See anything unusual on the meteorological reports?"

"No," Hernán replied, puzzled. "Why?"

"Hemingway here was licking his thumb earlier. Usually means weather."

Hernán rested his folded chair on the ground and stroked his chin. A farmer of Hernán's years knew enough to trust a ship's cat. It would be horrible luck to ignore one. Farmers could be a bit superstitious in that way, and such superstition usually served them well.

"Spoke with the village elders earlier, they said their labs showed clear skies. They've got that early-detection and diffusion system here, helps break up the big storms to keep the village safe. There's a console in the community center that runs the whole thing, I saw it myself earlier and it's darn impressive. But I'll check my own equipment again when I get back to my ship." He waved farewell and trudged back to his docked farm. Thomas picked up Hemingway and followed his father inside their own airship, knowing full well that there were still chores to do before they could call it a night. The work of a farmer was never really done.

Through the stacked greenhouse within their airship they climbed, taking stock of corn varieties, the ripening of blueberries and apples, the growth of mushrooms, the colonies of crickets, the aquaculture tanks. Thomas' father reprogrammed a wayward drone as Thomas uploaded a new harvesting program to the others and then refilled the fertilizer and compost bins.

“Whatcha got there?” Thomas leaned over as Hemingway started pawing at the stalk of a kale plant in the vertical hydroponic wall array. Thomas held up his tablet and tugged at the plant.

“Run scanning program,” he instructed the tablet, and on his screen tiny specks appeared. Mildew, in the earliest stages along the roots. Not even the drones had detected it yet. Unchecked, this would spread easily. Thomas spritzed the soil and the nearby tanks with an antifungal his father had perfected years ago and programmed the drones to keep spritzing every few hours. If that didn’t work, Thomas would redeploy some of the nanites in the composter to target the mildew spores directly.

“Better?” he asked, and Hemingway meowed in satisfaction.

“Hemingway find something?”

“Mildew, but I took care of it,” Thomas answered, turning to see his father descending a ladder and clapping dirt off his hands.

“Nice work, both of you,” Adrian tussled his son’s hair before yawning and waving goodnight. Thomas glanced out the window. The sky was still clear. Maybe a cloud over the mountains, it was hard to tell. But the trees in the village and grasses illuminated by moonlight were trembling as the wind picked up speed.

“Dad...”

A waver in Thomas’ voice stopped his father, who turned.

“Do the village’s storm detection systems really work?”

Adrian smiled softly and knelt next to his son.

“Yes, they do.”

“But what if there is a storm? Grandpa Ted used to talk about storms that wiped out whole towns.”

“Storms happen, Thomas. I know you’ve heard the stories of horrible storms from your grandpa’s generation, God rest him. But that was a long time ago, back before they got the warming under control. Do you know why we farm in airships now?”

“The old farms took up too much land,” Thomas recited the lessons he had been taught since his earliest memories. “Killed biodiver—biodiversity. And it was either take to the skies or start farming in the cities and we wasn’t about to become urban farmers.”

Adrian laughed and slapped his knee, then wiped the corner of his eye. It was his own father, the founder of the airborne family farm, who drilled that lesson into Thomas’ head.

“That’s right, kiddo,” he chuckled. “But just because we

moved away from fossil fuels and moved our farms into the sky to let the land heal, it didn't get rid of storms. Just brought them back to what they had always been. Storms are a part of nature, totally normal. Look here."

Noting the apprehension still written across his son's face, Adrian pulled out his tablet and tapped open an image of the town's schematics.

"The village's early-detection and diffusion system," he gestured to an array of antennae and dishes surrounding the perimeter of the township, "were designed in your grandpa's generation. That means they were made to break up the mega-storms of the warming days. A system like this can handle a normal storm, no problem."

"What if nobody is in the control room?" Thomas pressed. Again, his father tussled his hair.

"Fully automatic. It will turn itself on if it detects a dangerous storm system, like a tornado. Even if there's nothing, one push of a button anywhere on that console will set the entire system into motion as a preventative failsafe. Guess this is a pretty good place for us to park for the night, huh?"

With a final tussle, he stood and jerked his head, indicating that it was time for Thomas to get to bed. Thomas nodded.

"Come on, Hemingway," Thomas called. He turned towards the ladder that led to his habitation quarters, but then paused and looked back. Hemingway wasn't padding along after him. Instead, the cat had leapt up to a windowsill and was staring, unmoving, at the rising moon. Finally, Hemingway looked down at Thomas and licked his thumb.

* * *

Perhaps it was the full moon flooding Thomas' cabin with beams of glowing light, or maybe Thomas had one too many sugar beet candies at the market, but he was restless that night. Finally, he managed to drift into an uneasy sleep, one where kernels of gem glass corn fell from dark clouds like hail and ribbons of lightning leapt forth to snap at his feet.

"Wha—" Thomas woke with a start to find Hemingway chewing on his toes.

"Stop it," Thomas grumbled, rolling over and shaking a foot at the cat. Hemingway took a small step back, then flicked his tail and pounced.

“Ouch! Hemingway, what is the matter with—” Thomas paused, the insult frozen on his lips as Hemingway hopped off the bed and trotted towards the door, pausing just long enough to cast Thomas a look that was clearly intended as an invitation to follow. No, more than an invitation. An invocation.

Slowly, Thomas pulled back his sheets, grabbed his slippers from under his bed and his robe from the wall, and followed the cat into the shadowy hallways of the airship. All was quiet, save for the occasional whir of a farm drone at work, examining stalks or spritzing the kale for mildew. Finally, they reached the cockpit of the airship where Hemingway sprang deftly onto the console and looked up at the sky. Thomas followed suit. He could still see the moon, bright and full, but dark clouds were forming around the edge of it.

“Just a little storm,” he told Hemingway. “It’s part of nature. Come on, let’s go back to bed.”

The cat did not move, but remained transfixed on the sky, still and silent as a statue with a hint of tension in his limbs, as if waiting for a mouse to race across the surface of the moon. Thomas watched the cat, bit his lip, and scanned the sky again.

“Okay, if it will make you feel better, we’ll check the scanners. Dad taught me how to read the meteorology maps and I’m pretty good. Not that it really matters; the village has a storm detection system way more advanced than our airship so, if there was anything, they’d know already,” he explained to the cat as he flipped a few switches and lights in the cockpit flickered to life. On the central monitor, lines of jet streams and air pressure icons materialized. “Here, see this? That air current from the mountains is what’s causing the clouds outside. A little late in the year for thunderstorms but they said it’s been a warm fall so it’s nothing to...worry...”

Thomas’ voice trailed off, the gentle glow of the screen reflecting off his wide eyes. Thomas blinked and rubbed his eyes, shaking his head. He was tired, he wasn’t reading that right. He squinted and looked at the screen again. Hemingway peered for a moment at Thomas, then back at the sky. He licked his thumb and meowed.

* * *

Beyond the circle of airships, the village was quiet save for the rattling of shutters in the growing wind, but nobody seemed to care

much. They lived on the plains. Wind was not a foreign concept. But that rattling did obscure the sound of feet scampering through the prairie grass and skirting along the edges of town, one set human and the other feline, keeping pace. Thomas slid against the exterior wall of the community center, slowly stretching up on his toes and straightening his spine to peek in the window. Wrong window. He tried another, then another, before finding the one he was looking for. He cupped his hands against the glass and peered into the darkened space. The room seemed empty. The only sign of movement was a few blinking lights at the control panels.

Thomas tried the window, but it was locked. He found a long, sturdy twig and was able to jam it between the panels, reaching it towards the locking mechanism—

click

The lock popped and Thomas squeaked in surprise, then glanced around to make sure no one had heard the involuntary noise. He hadn't actually expected it to work.

Wind whipping his hair in his face, Thomas pressed his fingers against the glass and eased it sideways along the track, until suddenly it stopped. Thomas tugged at the window, then tugged again. It wouldn't budge. He pressed his face against the glass and could see there was a bar in the track, something intended to keep the window from opening all the way. Thomas grumbled and leaned against the building. All this work and the window opening was too small for him. Hemingway rubbed against his leg, sheltering behind Thomas as the wind blew harder and harder. Thomas crossed his arms, then dropped them. He looked down at the cat. The window was too small for him, but...

* * *

The official story that came out following the events of the next day was that a cat from one of the visiting farms had snuck out, climbed through an open window at the community center, and landed on the control panel for the village's early detection storm defense matrix. Of course, nobody realized this until the village elders were startled from their beds by the blaring of alarms and, stumbling into the community center's control room, found a fluffy Midwest Coon dozing contentedly on the central console. It was easy enough to make the assessment that the cat had leapt onto the activation buttons by accident, but even a cursory glance over the meteorological equipment proved just how fortuitous this was.

The computer system was programmed to detect storms in progress, which it did with great accuracy. The early detection and diffusion system was very good at this, as long as the storms followed the expected patterns programmed into its software.

The unusually warm and wet autumn, however, was not expected. Nor was the storm that lingered for an unusually long time over the mountains, creating a massive draft of cold air that swept suddenly high over the plains that night. If these two systems met, each rotating in opposite directions, by the time they collided it may have already been too late for the diffusion array to stop it.

That's what might have happened, had a rogue ship's cat not happened to activate the diffusion array, flooding the atmosphere with energy that warmed the incoming cold, dry air just as it was arriving from the mountains, thus negating the storm conditions before they had a chance to interact. It was a remarkable stroke of luck, and the village elders swore they would take this opportunity to upgrade their storm defense software to better predict such unusual events.

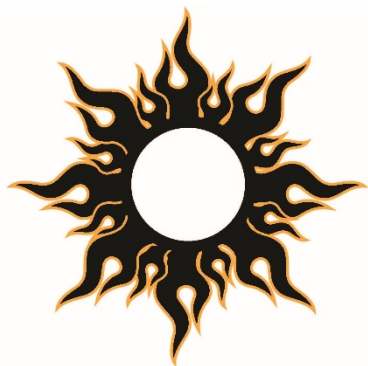
Thomas and his father remained in the village for a few days to offer any assistance they could, but eventually the time came for them to return to the skies. The greenhouses did best when kept at higher altitudes and generated their own power from kinetic motion, and the family preferred to stay on the move anyways.

As they drifted off, a vanishing speck within the great blue expanse that blanketed fields of green and brown below, Thomas' father waved a hand to shoo Hemingway off the control panel.

"Darn cat," Adrian grumbled, voice gruff despite the twinkle in his eye. "It's almost like someone undid all that work I put into teaching him not to jump on buttons."

Adrian glanced sideways at his son, who had been uncharacteristically unopinionated as to how Hemingway managed to get out the other night. Thomas nodded, not taking his eyes off the report he was reading from the gardening drones, small hints of red flushing in his cheeks.

Adrian chuckled to himself and shot Hemingway a look. Hemingway said nothing, remaining as guarded a secret keeper as ever, but stretched out across the console and yawned.



RADIANT

by Rhondi Salsitz

“Trespass! Intruder alert!” A pause and then: “Exit immediately. This property is scheduled for destruction.”

She expected the warning, but not that the AI would carry her father’s voice. It shook Robbie more than his body being shipped home unexpectedly had.

“I’m in,” she said to Chloe over the transmitter. She scanned the brilliant, silvery track ahead and behind as she set her vehicle into the fast lane. “It’s a God-be-damned solar road. Nothing like what was specified in the NDA and contract for Dad that we unearthed. This is no construction service track. Keep that signal bouncing. I don’t want to be traced. They’re getting ready to blow the place.”

“You know that how?”

“Look at the recording from the drop point. The whole area was cordoned off as well as camouflaged. Flags, warnings, you name it. I’m praying I don’t run over a mine. Chloe, give me a voice!”

Her partner and hacker said drily, “They’re going to find you eventually. Soon as you start transmitting, we’ll be revealed. That’s how it works in a Dead Zone. Our presence will stand out.” A pause, then, “You have signal. I’ll cover you as long as I can.”

Robbie knew she would. They were in this together, the rare kind of connection one sometimes makes in life. Building the road had killed her father; now it could kill her. She had no physical evidence to claim that, but she knew it just as surely as she knew his name and hers: Robert Masters, called Bob; Roberta Masters, called Robbie.

He'd not kept in contact with her while she worked grad studies, unlike he usually did. She strongly suspected that he couldn't because of security clearances. He was always terribly proud of his projects, his legacy. That had hurt her feelings once, until he'd held her close and explained that she had her own fate to find, he wouldn't saddle her with his. But he had, hadn't he?

She'd find out why he'd lost his life for this project and expose it to the world—because this...*this*...was an incredible asset and he'd been jacked over for it. He must have scammed them to build it. That had been foolish and impulsive—and so like him. So what did they want hidden?

She opened transmission. "This is Roberta Masters. My father, Bob Masters, built this road. He died getting it finished and now it's scheduled for demolition before it's ever been used. Ride along with me as I find out why," and let the podcast roll.

She settled deeper into her sled's seat. She wanted the wind in her face but couldn't afford the drag. Nor could she allow the sun on her skin because she'd had to scuttle most of her hydration and food supplies for weight. The only things she hadn't sacrificed were her electronics for monitoring and speed.

She checked the screens on her decoys. Lagging far, far behind her, as intended, they skimmed the same lanes.

A sudden explosion, punctuated with an orange blossom as one took a hit. She looked back to see smoke billowing up. Robbie wrapped her hands tighter about the controls. Too soon. She shouldn't be frightened, but she was. The road seemed to rear up and then settle flat, wheels skimming it effortlessly. Energy rose and the sled gulped it down before joining the cycle, returning it with its velocity. Perpetual, almost.

Nearly.

Awfully.

She took a meager swig of her only water and couldn't say aloud the rest of her immediate thoughts. Her father couldn't find work. And then, he'd been hired. Quick and dirty. He'd do the job

to their specifications, wouldn't he—broke and disgraced as he was? And never mind his heart condition, that might even be an advantage, in the end.

Frowning, she studied the horizon, trying to determine the road's destination. Readings had been masked. She could see the land streaming past: sere and near empty, although remnants of abandoned construction camps appeared and disappeared. It tore at her senses, this wasteland. Her education of agro management and resources, her background, told her that this couldn't be more wrong. Open land had potential, but this area had it stripped away.

She'd planned her sled launches the day she'd noted her drones could not give her the answers she needed. Someone had paid for this Dead Zone. No transmissions in or out. The zones were rare, but this was the second one they'd breached in as many weeks, looking for evidence of her father, because she could find no trace of him elsewhere. But Robbie had no intention of being stopped. Money had been no object but Time—yes, Time had been against them.

Roberta flicked a glance toward her main screen. She couldn't see what she transmitted, but comments had begun floating about the edge in response. Nothing positive, mostly puzzlement. They wanted to know what was happening. She thought she saw movement outside the lanes, blurred by her speed, but distinctive from the sand and dirt and long-abandoned buildings. Viewers? Dwellers living like desert rats in the nothingness, come out to see what was happening?

She addressed them. "Are you watching me? And what do you know? What has the corporation built here? Did you live here once? Were you driven off?" She tried to grasp a discernible answer.

"Trespass detected. Exit immediately before enforcement."

That sounded closer. She clenched her jaw. The helmet strap rubbed a bit under her chin. The nearest on-ramp suddenly filled with two dark shapes, heading her way. She could almost smell their afterburn. Her audience reacted. "It's a chase!"

Sliding her right foot down, she punched the sled into another gear and felt it surge forward. A slight shimmy answered from the rear axle. Her throat tightened a little, even as she braced her legs into place and leaned into the vehicle's framework. Lean motorbike machines soared into position behind her and closed. She flexed her left hand and hit a release switch, an iridescent puddle left behind

in her wake.

The automated pursuers hit the slick, skidded across the lanes and off the road, disappearing in a puff of dust.

Robbie gave a silent cheer before lapsing into worry. It wouldn't work again. New enforcers entering behind her would give fire instead of pursuit. The road had been engineered to be smart. It learned and would continue to learn, given the opportunity.

"Dad, what are we doing out here?"

"Destiny, Robbie. Destiny."

Robbie nearly fell from her seat. She hadn't expected an answer, especially from the road. But still... Her destiny? Or his?

She brushed the back of one hand against her face, found herself smearing tear tracks across her cheekbones that she didn't know she'd shed. With a shrug, she settled back into position and willed herself impenetrable. Unstoppable.

"Was it worth it?"

The road—her father—didn't answer. Maybe he couldn't. Or maybe he hadn't built that capacity into it. Maybe she'd only imagined his response. Or maybe he deemed it best that she discover the answer herself. Robbie addressed her listeners. "I'll tell you what I do know. This road has never had a test run nor has it been fully powered up. Once it is, it'll light up this grid. It'll be seen from space, a silver thread of energy. There won't be any way to bury it then. But they're going to destroy it today. Why? That's why I'm here. I intend to find out."

Robbie hunched her shoulders as four more Enforcers veered into sight behind her. She felt the first jarring hit to her flank but the road swallowed it up, self-repairing almost faster than it had been damaged. The road would survive far longer than she and her sled would. But it wouldn't survive what administration had planned for it—and whatever happened to her would perhaps not even be noted.

Except for her transmission.

Chloe muttered a curse in her headphone, tense with concern.

"I'm taking fire, Chloe. Travel on this road is prohibited; I need to know why. So do you."

Robbie muted again. The swarm of responses to the podcast drifted by too quickly to be read. She veered across the lanes, braked abruptly, and let the Enforcers flood past her at speeds that made her sled tremble a bit. Then she took off after them, took aim

at their vulnerable rears.

Her main difficulty became avoiding the wreckage.

The road responded with a wide sweeper of its own from the maintenance lane, brushing away the carnage. She moved her sled back into the main lane, resumed speed, and wondered if she'd meet the corporation face to face at road's end.

"Trespasser denied access."

Suddenly, her sled skidded across the lanes and down the off-ramp, without warning, slowing only enough to avoid an accident as the road rejected them.

Dust flew up. Bits of brittle branches and leaves and shreds of trash rose in a funnel about her and then settled as the sled began to let out little ticking sounds as it cooled.

"Son of a bitch." Robbie pulled off her helmet. She squinted over her shoulder at the forbidden highway. She'd heard rumors but never seen anyone being denied access. She swung off the sled and stood, her booted feet settling into fine dust at least half a hand high. It might have held greenery, once. Now she couldn't even feel the potential and that was her *job*.

Life grows where water flows.

And nothing lived out here.

Ignoring Chloe's frantic queries for a second, she dipped her chin and said, "Well, here I am, viewers. The road's ejected me. I'm not going to sit here and take it. Are you with me?"

Her partner said tightly, "Are you all right?"

"Pretty much. Mad as hell though."

This time she had a moment to read some of the remarks floating across her screen. Curiosity. A few trolls. All in all, support.

"Okay then. Hang on."

She took a moment to go over the vehicle. Wheels looked a bit worn but they would hold. Undercarriage seemed all right. Her seating sling could be more comfortable but she wasn't there to be coddled.

She could really use another drink, though, and none to be had. It was the road or lay down here in the dust and drift away like whatever else had once thrived on this land.

Not gonna happen today.

Drones circled overhead. She waved at them. The sled didn't want to move. Robbie went through her launching sequence, found the auto-lock had been kicked on, and shoved it off again. Then,

with a grunt and a heave, tried to roll it back into position at the road's nearest edge.

"Need help?"

"Jay-sus!" Robbie jumped. The voice had hailed her from out of nowhere.

A dusty figure arose from a gully bordering the road and eyes nearly lost in wrinkles blinked at her. He wore homemade cammies the color of dirt and sun-burnt twigs and dried sage. He held a long gun slung across his chest.

She assessed him. He looked real enough. Uncertain of what defensive maneuvers the man might take, she stood for a moment, thinking. He could, possibly, be quite deadly. Just like the armament on the road itself. Some of the roads her father had built had contained what was commonly called the Ukrainian defense. If she tried to breach that, it could be catastrophic. Perhaps that was even how admin intended to destroy the road.

"I might," she admitted reluctantly, even as Chloe urged her to respond and accept.

He didn't ask why. He smelled like the land itself, dry and dusty and solitary, as he leaned past her and put a shoulder to one corner of the back bumper. She took the other. With a couple of grunts and heaves, they shoved and hauled the sled up over the shoulder, on ramp or no on ramp. The sled came to a stop against the actual corridor and she leaned on it. The road pushed back.

The desert rat straightened and eyed her. "It thinks on its own, this road does."

"To some extent."

"And your daddy built it?"

"Yeah."

"He tried to keep us all from leaving. Said he could leave us hope." The man looked up, his face narrowing against the sun and heat. "Then his heart gave out. Or so they said."

"You saw it?"

He shook his head. "Just heard about it. The corporation came to get his body and then all H-E-double-L broke loose. They were about as mad as I've seen a pack of men get." He waved a hand. "How you gonna get back in?"

Robbie tilted her head in thought. Then she smiled slightly. Enforcers she could contend with; this defense could stop her. But she just might know of a back door. "I've got this."

He nodded. "I'll leave you to it then. But we'll be watching." He lifted his arm and, from the sands at his back, two drones rose. She nodded back.

When he'd melted back unseen, she muted her transmission again and said, quietly, "Elephants eating eggplants."

Improbable and whimsical. An open sesame that she and her father had once played at. And it worked. The road reluctantly gave way so she could roll the sled back onto the lanes.

It was the sled that tried to betray her. It didn't want to re-start as she got back in the carriage and lit up the dashboard. It stayed dark. She checked the energy level. Somewhat depleted but nothing that could keep it from starting.

Robbie hit the dash with the heel of her hand. "Come on! Crank! Let's go before they spot us again." The sled gave a tiny vibration and quit. She wanted to kick it, but that wouldn't help. She darted around the vehicle, checking its external components as quickly as she could, before rearing back and looking at it ruefully. It could still draw the needed energy. So what kept it from functioning?

She did kick it then, the noise rebounding off the bumper. "Assistance."

Robbie spun around. A spindly automaton balanced on the road's edge, having emerged from who knew where—no, she knew. Her dad often built in repair pits at the roadside in areas where breakdowns should be avoided. The dustbowl that surrounded this area certainly qualified.

Still...was this bot friend or foe?

It lifted one of its articulated arms. "If you need assistance, I can render mechanical aid."

Robbie leaned a hip against the side of her sled. "Nothing broken here. It's fine. We're fine."

"It failed to start."

"It's tired."

The automaton wheeled off a bit and came in at a different angle. "Its charge seems adequate."

The longer it observed Robbie and her vehicle, the more nervous she got. "I'm refusing your assistance."

Something whirred inside of it. It tilted what would have been its observation deck. "Understood." It twisted about. Then, it looked back over its...well, it wasn't a shoulder, it was an electronics deck.

“It’s on auto-lock.”

“But I—”

“It will default to auto-lock until the bypass code is completed.” Then the bot wheeled away, disappearing into a shadowy pit behind them, at the road’s edge. One moment there was a tunnel opening and the next there was not.

Robbie reflected that it might have been useful to learn how those tunnels could be accessed. She pursed her mouth in thought, before turning back to her sled and disengaging the auto-lock again. Before she had even moved her hand away, it slid back into place.

“Shit.” Robbie pivoted slightly on one heel, wondering if she could summon the bot and then went back over what little it had said. “Bypass needed to be completed.” Bypass? She knew she’d gotten it right, knew...

Her memory joggled.

Robbie inhaled and said, “Elephants eating eggplants *efficiently*.”

Stupid, stupid, stupid, but there it was. Her sled’s engine started up smoothly. Robbie retrieved her helmet and climbed in, fastening safety belts as she settled. “God, Dad, you’re gonna kill me here.”

Defly she steered the sled over to the lane conducting the most energy and set the acceleration to max. It was all about the deadline now.

Because the road demolition had begun. She could see the smoke, feel the detonations through the road, through the sled.

She checked the monitors on her last two decoys in time to see them destroyed kilometers behind her. Now admin could track her and her alone.

The rise in elevation began very subtly. She wouldn’t have noticed it, but the sled began to strain a bit. And then they were approaching a definite hill.

What had been so important her father had given his life for it?

Enforcers hit the corridors behind her. She livestreamed the new pursuit, but Robbie kept her eyes focused on the horizon. She would reach it or die trying. Behind her, the road began to come apart and her sled shook and shuddered with every shock wave as the road died. It hurt her nearly as deeply as her father’s death.

With a last lurch—as the road’s power guttered to a stop—she

made the summit.

Blue-gray as far as she could see. A sandy shore. A lagoon of near tropical beauty. And a massive, brand-new desal plant at its edge.

“Water!”

Water, more precious than platinum or gold or...well, almost more precious than life itself. And her father had rebelled against the utter waste and corruption of it being shipped elsewhere and built a solar road leading right to it. Had he known, after all, what career path she'd opted to take? Activism rather than construction? She inhaled.

“Here's your hope,” Robbie said to her viewers. “He promised to give you back what corporate profits tried to take away. Are you going to allow this? I'm not!”

Her transmission squalled.

“They're trying to block us,” Chloe warned. “And you'd better not be standing on that ridge line like a damn target or I'll kill you myself.”

She ignored her partner. “If any of you are still out there. If you have sand runners or boats and even, hell, rubber rafts, get out there and block those tankers waiting to siphon off *your* water! This is war! But they can't win if we don't give up. Life grows where water flows! He made you a road so you could come here and see and protest!”

Chloe screamed at her to move but Robbie wouldn't and used her telescopic lenses to get a close up of the desal plant, filling the podcast with both the shame and glory of it. She talked until she was hoarse. The demolition caught up to her, right on her heels. A cloud darkened the sky above her and she hunched her shoulders as drones began to circle to fire shots at her—

And other drones, some rusty, some patched and jury-rigged, ranged up against them and the sky filled with a miniature battle.

She moved then.

Her desert rat friend with the long gun ran across the ridge to join her, bringing her down on one knee to take whatever cover they could. “They can't shoot worth a damn,” he told her, “but better safe than sorry.”

Robbie knew “they” didn't need to be precise as the road splintered. Each boom vibrated through her bones and she clenched her teeth as if that could help. Above the noise and through the

smoke and fire, she heard the AI voice of her father.

“Repairs actuate.”

That’s when the repair pits opened up, and the bots surrounded her and her sled, and they stood like the last defensive line in a war...

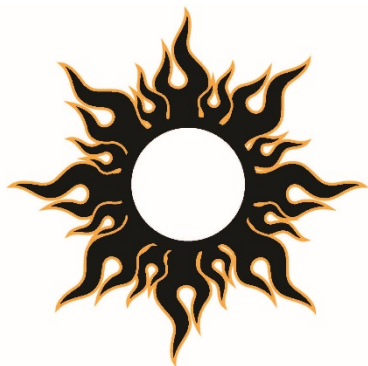
The harbor began to fill with boats of all kinds. Mostly small fishing vessels with faded paint and overrun with crew, all surrounding the desal plant. The nearest tanker turned about on the tide and sailed toward the sunset. At the road’s edge, vehicles began to hobble into place, dinged and dented and wired together, but they could still be driven as hundreds started their journey to the plant.

And they won.

Admin hadn’t planned on either of the Masters and surrendered as Chloe loosed the transmission on the wide world. Thousands cheered. Plans to come and make homes and fertile fields in the wasteland swirled across the net.

Robbie just listened, and what she heard made her heart soar. The road would be re-built. It would carry the Masters’ name. It would carry the hope it had been designed to carry.

Was it worth it, Dad? Yes, yes it was.



DRIPS OF HOPE

by Ember Randall

Over the past two years, Thorn had visited a number of soon-to-be-evacuated neighborhoods, but none had seemed as oblivious as the small village on the outskirts of Santa Fe. Children played in the whitewashed streets, families ate beneath the shade of café umbrellas, artisans sold pottery at the market. Four blocks away, the streets were deserted, yet here life continued as normal. That didn't bode well for her upcoming meeting.

Admittedly, it was a normal that included large rain-collection dishes on top of roofs and at every street corner, with desalination setups filling intersections as though a mad scientist had taken over the place. But the population maneuvered around them as though they were just strange statuary that had taken over the streets once the cars had fled—no one seemed to realize that the setups, elaborate as they were, wouldn't be enough. Already dehydration had etched wrinkles deep into the faces of the grandmothers selling jewelry on their little woven rugs lining the street; even the younger artisans had skin that resembled old leather.

Something pinched inside Thorn's chest at that. Even now, in the safe early hours of the morning, the desert wind leached moisture from her skin as fast as she sweated it out, leaving her coated in a fine layer of dust and salt. Her lips had cracked five

minutes after stepping off the bus, and she could taste the salt-sweet iron of blood whenever she licked them. She couldn't imagine living here day in, day out.

But, if folks had started packing, she saw no signs of it.

With a swallowed sigh, she prodded her phone, only to receive a blinking "Overheating" warning in place of her map. Subsequent poking did nothing to restore the map, and she grimaced as she turned to one of the artisans. "Excuse me, can you direct me to the local council chambers? My phone seems to have died."

The man eyed her with a suspicious expression, and she couldn't blame him. Her superiors still judged her dress by the standard of a world twenty years younger and three degrees cooler, leaving her trapped in a business suit made from the thinnest fabric she could find—she couldn't have been more of an outsider here if she'd worn medieval court gear.

At a nod from an elderly woman beside him, the man relaxed a hair. "You want the Sacred Heart of Mary church, just down that way."

"Thank you."

The church turned out to be an old stone building topped with a white cross that had probably stood in that same spot since the Spanish had left. But it had been modernized at some point, for a blast of cool air hit Thorn in the face as she pushed open the heavy wooden door.

The inside—it wasn't a foyer, but she couldn't remember what it was called—was tastefully decorated in shades of cream and sand. She could catch glimpses of stained-glass windows in the place where the sermons were held—she couldn't remember the proper name for that, either—but that wasn't why she'd come. Instead, she moved to the left and down a flight of stairs, following the discreet signs into a blessedly cool basement.

Seven pairs of hostile eyes stared at her as she entered the meeting room, and she did her best to greet them with an open smile. "My name is Thorn and I'm from the Bureau of Reclamation, but you probably all knew that. Thank you all for meeting me."

"Like we had a choice?" a middle-aged woman growled. Her skin was a tan that spoke of southern heritage, maybe Mexican, and she had a faint accent. "We don't need a Washington dyke telling us that we have to leave our homes. We aren't going anywhere."

Straight to the point, then. Thorn pressed her hands onto the table. “Ma’am, I wish you could stay. But they’re turning off the desalination plants in a month, and closing the diversions from the San Juan-Chama project in two. Without that water, and without the desalination plants to make the Rio Grande’s water clean, you won’t have enough to survive.” She pulled her phone out of her pocket. “I can show you the calculations if you want, but...”

“We don’t need the desalination plants,” an elderly gentleman told her, tone gentle but firm. “We can filter the water ourselves.”

“What water?” She tapped her phone. “Without the diversions from the Rio Blanco, Navajo, and Little Navajo Rivers, you’re down a third of your drinking water and half of your irrigation water. Without the desalination plants, your fields will be dead within five years.” She looked around the room at seven pairs of stubborn eyes. “I’m sorry. I know it’s a lot, asking you to uproot your whole community and move somewhere else. But the relocation stipends are—” she couldn’t bring herself to say generous, like she was supposed to “—available, and there are some lovely options for relocation.”

“And if we don’t move?”

It wasn’t the first time Thorn had been asked the question, and she gave the same answer every time. “The government will not force you to do anything, ma’am. But is this the life you want for your children?” Down here, it wasn’t safe to go outside after ten A.M. most days, and water rationing was no way for a growing child to live.

The woman’s mouth pursed, but she said nothing. Instead, the elderly gentleman leaned forward. “Our ancestors lived and died on this land for generations. We will not leave them.” He looked at his fellow council members. “We will find a way to survive. We always have.”

Thorn couldn’t think of anything to say to such immovable confidence. “I understand.” She turned her phone around. “Would it hurt to just look at a few of the relocation options, though? Just to see what’s out there.”

* * *

A bleak sort of exhaustion filled her as she climbed back onto the rickety old bus that would take her towards her next neighborhood. Few neighborhoods refused relocation outright, when it came down to it—they’d negotiate and argue and plead,

but, in the end, they'd look at the properties. But it was Santa Fe Seven's right to refuse, for what good it would do them.

The bus engine grumbled as it pulled out of the station. Other than the driver, Thorn was alone in its sweltering interior, and that almost made it worse. The neighborhood was already an oasis of life in a rapidly emptying ghost town—how would they survive once the water was turned off for good? Those desalination setups looked like a fifth-grader's science fair project, cobbled together from old plastic containers and chipped glassware and cracking rubber garden hoses.

Maybe she should have fought harder to get them to leave. But she'd spent the government-mandated ninety minutes there, and she had another five neighborhoods to visit before she could finally go home. If people were going to be suicidally stubborn, what could she do?

Her skin stuck to the old vinyl as she leaned back in the seat. Beyond the dirty window, charred husks that had once been trees dominated the landscape—sometimes it seemed like there wasn't a single acre of green left in the whole southwest. The skeletons of scorched adobe buildings were grace notes in the bleakness. *You did the best you could.*

Even in her head, the words sounded paltry and false.

* * *

A sticky note was sitting on top of a sheaf of papers on her desk when she got back to the Bureau's headquarters. "Explain this," it read, in near-unreadable handwriting that took her a good five minutes to puzzle out. She lifted the first piece of paper and groaned. It was an email from the council of Santa Fe Seven, politely declining the Bureau's offer of relocation, and it was stapled to a report on the neighborhood's dismal prospects of surviving the next decade. Someone had printed the bloody thing out, for heaven's sake, rather than emailing it like any sensible person would have done.

That, combined with the handwriting, meant one person—Ethel Frankwright, Thorn's mumble-year-old supervisor.

Thorn was sweaty, dusty, and reeked of vinyl from too many buses, but she smoothed down her suit jacket and picked up the report. The longer Ethel had to wait for a response, the worse the eventual explosion would be.

The old woman looked up with a pasted-on smile as Thorn

knocked on her office door. “Ah...do come in.” As usual, she hesitated over the space where a name would be, then skipped it entirely.

Thorn stepped inside. “You wanted to talk about Santa Fe Seven?”

“Do sit.” Ethel waved her to the bright orange plastic chair in front of the desk. “Now, you’ve got a very good success rate, dear, so I hate to nitpick, but Santa Fe Seven has one of the worst prognoses of any neighborhood we’re evacuating. Their refusal here isn’t going to make the commissioner very happy.”

“No, ma’am.”

“Congress is just looking for an excuse to shut the program down, you know,” Ethel continued, as though Thorn hadn’t spoken. “We don’t want to hand them a publicity boost like this. A neighborhood refusing to leave? Others will follow their example, and then we’ll have a crisis on our hands when they all start to fail. No, we can’t have that, can we?” She beamed at Thorn. “I do hate to ask you this, but you’ll have to go back out there. Maybe in a month or two? Let them see how hard it truly is to survive without our water.”

At least she hadn’t ordered Thorn back onto a bus this instant—that was something. Thorn plastered a professional smile onto her face. “Of course, ma’am. Is that all?”

“For now. Go get cleaned up, dear, you look a fright.”

A wave of exhaustion crashed over Thorn as she left the office. Of course the Bureau cared more about the publicity than the success or failure of the neighborhood—she shouldn’t be surprised about that at this point. But the thought left a bitter taste in her mouth anyway. Wouldn’t it be nice if one neighborhood, just one, figured out how to survive in this brave new world?

Her steps slowed, then stopped. Something—maybe the fatigue-poisons coursing through her brain—had her reverse course and head towards the desk of the Bureau’s supply guru, a rainbow-haired man named Harrison. “Hey.” She hesitated, then plunged ahead. “Do we still have the prototype second-gen Whisson’s Windmills in storage?”

He squinted up at her. “A few, yeah, I think. Why?”

“Can you send one to a district called Santa Fe Seven?”

“The holdout?” He lowered his voice. “She won’t be pleased with that, you know.”

Thorn glanced at Ethel's closed office door. "Right now, I don't care." Besides, it wasn't like the thing was doing much good in a warehouse. "Oh, and make it an anonymous shipment, will you?"

"On your head." He shook his own. "I'll see it done."

* * *

Two months later, Thorn walked back into Santa Fe Seven to see a large turbine sticking up from the center of the open-air market. The desalination setups had been reconfigured to feed into the turbine's transparent base, which was now half full of water; a small tube ran from the bottom of the base to a spout halfway up. As Thorn watched, an old woman limped up, carefully unscrewed the double seals, and filled a bottle from the spout. It was almost enough to relight the spark of hope that had died somewhere on one of her many interminable bus rides through drying wastelands.

"Useful, isn't it?"

Thorn jumped and spun to see the youngest member of the council standing beside her. He gave her a crooked grin. "Some unknown benefactor sent it to us." His gaze drifted to the artisans sitting behind it. "It's not enough, though."

The spark died once more. "The relocation offer is still on the table," she felt compelled to point out.

"They won't take it." He turned to face her fully. "This is the only home most of these folk have known. They can trace their ancestors back for generations in the church graveyard, and most of those ancestors lived in the exact same house they do. To give that up..."

"If it means you get a chance to survive?" She arched an eyebrow. "Is that why you came to meet me out here? To tell me not to bother with the meeting?"

His lips pinched together and he looked away. "It's not the life I want for my children, ma'am. But the rest of the council doesn't agree."

"Then leave them. The relocation offer is on a per-person basis—you don't need to bring the whole neighborhood with you."

"And abandon my children's grandparents?" His tone was shocked. "Could you do that, ma'am?"

She did her best not to snort. "My parents kicked me out when I came out as trans, and my grandparents haven't spoken to me in twenty years. So, yeah, I could." She winced at the way he

shifted in discomfort. She hadn't intended to sound quite so cynical. "I can understand why you won't, though," she added.

He studied her for a moment, then sighed. "They're scared, I think, though they'd rather die than admit it. They don't want to leave what they know, and they don't want to go begging to Uncle Sam either."

"So tell me what might convince them."

She wasn't sure why she asked—if they were already failing, then the publicity Ethel was so worried about would never come to pass. All she had to do was report that and she'd never have to walk through these streets again.

A flash of color caught her eye, and she turned to see a group of children chasing a soccer ball through the market. Shouted warnings to beware the pottery followed in their wake, but the yells were tempered by indulgent smiles and the children themselves grinned as though they didn't have a care in the world. How was it fair to tear them away from the only home they knew?

Then again, the world wasn't fair, was it? And the thought of what would face these kids as the water slowly ran out didn't sit well with Thorn.

She swiped a trickle of sweat off of her forehead and turned back to the council member. "Please. Help me convince them that they can build a new life—a better life—somewhere else."

The man sighed. "Well...you might try this." And, point by point, he laid out all the fears and hopes and dreams that the council cradled close, along with all the ways relocation shattered those dreams.

* * *

Five hours later, Thorn walked away from the Sacred Heart of Mary church with a polite, firm no and a barrel of ideas for how to change that no to a yes. They simmered in her mind the whole bus ride back to Washington, buoying her up as she made her report to Ethel. "I think," she concluded, "I can convince them."

"No."

Thorn blinked. "What about the PR disaster?"

Ethel set her papers aside and gave Thorn the small, sweet smile she probably gave to grandchildren who had just proposed something like dessert for dinner. "You said that they're already struggling, right? They can hardly become a PR disaster if they're failing, dear. But they will make an ideal object lesson for other

recalcitrant communities. Weren't you saying that both Los Alamos Two and Moab Four were trying to bargain for an increased relocation stipend? This ought to convince them both to take the package while it's still available."

The response wasn't a surprise, but it still set a fire simmering inside of Thorn. Her back ached from too long on a hard bus seat, her feet were throbbing, and she was in no mood to be conciliatory. "Doesn't their welfare also matter? Or have we stopped caring about that entirely? After all, one happy neighborhood isn't much good for publicity." She spat the last word like a curse.

Ethel shot her a sharp look. "Why don't you take the rest of the afternoon off, dear? Get some rest. Then you can start on your next cases with a clear head—you do have quite a lot of them, after all."

Thorn considered and discarded a dozen responses before finally settling on, "Yes, ma'am," under the assumption that anything else would get her fired. Then she ducked her head in pseudo-submission and turned to go.

Ethel cleared her throat as Thorn's hand landed on the doorknob. "Oh, and, dear? No more extracurricular actions, understand?"

Heat—rage or shame, Thorn couldn't tell—washed over her as she left the building. The muggy summer air that smacked her in the face as she stepped onto the sidewalk did nothing to cool her temper. Extracurricular actions. Seriously?

Alright, she shouldn't have sent the Whisson prototype to Santa Fe Seven. But was it so bad to hope that someone, somewhere, could eke out a semblance of normalcy even as the world shattered around them?

Maybe it'd been foolish. The relocation bill had been struck down by four separate Congresses before the situation became dire enough that even the most pigheaded politicians couldn't ignore it. And it had required a whole other set of political battles to convince the Bureau suits to change their mission: no longer would they turn the desert into a paradise—instead, they had to move all the people who'd settled in that desert on the strength of the Bureau's promises.

So now their engineers were unwinding all the miracles of the 20th century, while folk like her were stuck trying to convince people to leave their beloved homes for a pittance and a prefab

house somewhere damp and foreign. Was it any wonder Santa Fe Seven refused?

The subway stank of sweat and old cigarette smoke, with an underlying hint of urine, but she barely noticed as she climbed into the air-conditioned car. How long had it been since she'd taken a vacation? She had to have a few days saved up. And Ethel couldn't complain about something Thorn did on her days off...

* * *

"And, if you like it, I can take three of you to see it tomorrow." Thorn scanned the flat faces staring at her as the lights came back up. "What do you think?"

She bit the inside of her cheek as the council members continued to stare. On the projection screen behind her, the mockup of the relocated neighborhood circled slowly through the various views. Thorn was quite proud of them—she'd spent far too many hours calculating the cheapest ways to recreate a New Mexico flavor in the town in eastern Washington.

"Doesn't look like much," one of the women muttered.

"You can decorate it however you want," Thorn replied. "I'm not much of an artist, I'm afraid, but your community has plenty."

"How much will this cost us? We won't take charity."

Thorn flipped back to the slide of costs that she'd prepared. "The relocation stipend will cover the down payment on the buildings themselves, and you'll have a bit left over to start renovations. If you budget carefully, as per here, you shouldn't be spending more than \$5,000 per family." In the first year, at least.

The oldest man on the council raised a white eyebrow. "So cheap? We've heard that the stipend rarely covers more than half the down payment."

"Well..." Thorn tried to smile. "Most people don't want to live in the middle of another desert. You won't be close to major population centers. But I understood that that's actually a good thing. It should feel similar to here, climate-wise, except you'll actually have enough water. And you'll all be together. And..." She flipped to a new slide. "The History Keepers Association has volunteered to move the graves of your ancestors so they can come with you. If you want." She hadn't been able to figure out if that would be considered sacrilege by the various faiths—primarily Catholic, but Santa Fe Seven also had a number of folk from the Apache and Navajo peoples. But it had been a major sticking point

for them, so she hoped the offer wouldn't offend them.

The council exchanged looks. Thorn bit her cheek once more. If this didn't work, well... she was out of ideas, and out of vacation days as well. She'd called in sick just to make the trip down here. *Please*, she begged silently. *At least consider it.*

After the silence had transitioned from awkward to agonizing, the eldest council member leaned forward. "Very well, Ms. Thorn. We will visit your proposed neighborhood."

"And you'll consider relocating there?"

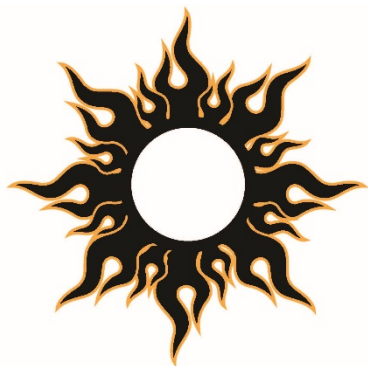
More glances bounced between the council. "Yes, we will," the youngest member said firmly. "No, grandmother, I understand you don't want to leave. But we must at least consider this—we won't get another offer like it. Would you rather see us split apart, one family drifting off at a time as the lack of water gets to be too much or their savings run out?" He looked around the table. "How many tourists do you think we will get, in the coming years? Where will we find work when the hospitals and stores and restaurants close, when the fields wither from lack of irrigation? No. If we wish to live, we must consider—consider!—change."

This time, before the silence could stretch too long, laughter filled the room. "Very well, Sani. You, and I, and... Maria? Will you accompany us?"

One of the women heaved a sigh. "I suppose I must." She eyed Thorn with something akin to suspicion. "Why did you decide to do this?"

Thorn resisted looking at Sani. "A little bird gave me a few tips. And, truly?" She shrugged. "It's my job."

"Then we're decided." Sani stood up. "Tomorrow, you said?" When Thorn nodded, he grinned. "Then I suspect we should pack. It is a long set of bus rides to Washington State, no?"



LUMEN

by Gail Z. Martin & Larry N. Martin

1898—West Virginia

“The wagon should have been here by now,” Galen Willaby said. Old Mr. Hendricks shook his head.

“Sorry, Galen,” Hendricks said. “Tell you what—if it hasn’t arrived by end of day, I’ll send a telegram. That’s the best I can do.”

“It’s too early to panic.” Hendricks chuckled at Galen’s deflated expression. “What’s in the shipment, anyhow?”

“Mostly plates for the big dinner at the end of the conference.” Galen brushed an errant curl of red hair out of his eyes. “Nice enough to look respectable for those newspaper people and investors.”

“If they’re coming in from the city to hear Taron Hibbard talk about solar energy, I don’t think they’ll expect us to be feral.”

“We also had some replacement parts for the solar equipment made. I want to make sure we can put our best foot forward.”

“Do you ever sleep? I know the conference is a big deal, but you look like you’re running on coffee and nerves.”

Galen gave a chagrined smile. “I sleep a little. But we’ve got major investors coming in from New York, Boston, and Chicago, and the inventors who create that technology. After everyone’s hard work for ten years, this could be the big break for Taron’s theories and solar power. We could prove all the naysayers wrong. It *has* to

go well.”

“I sure hope Professor Algernon gives you a big raise when this is all done. And a week to catch up on your sleep,” Hendricks said. “Now scoot. When the wagon shows up, I’ll send for you.”

Galen thanked him and headed outside. He pinched the bridge of his nose, staving off a headache.

“Mr. Willaby!” a dark-haired woman called out and rushed toward him. “I have a few questions for you.”

Galen didn’t recognize her. “Can I help you, Miss?”

“Sara Jackson. Call me Sara—they say Lumen folks don’t stand on ceremony.” She gave a wide smile and a firm handshake. Her hair was caught back in a thick braid, and her blue eyes sparkled with curiosity. “I’m with the *Charleston Weekly Star*.”

“Reporter?”

“Sure am. And I’m wondering if Lumen’s ready for the hornet’s nest this conference is likely to stir up.”

Galen’s eyebrows rose. He hadn’t expected that to be the first question if the subject came up at all. “We believe in the solar technology we’re pioneering—and proving—to light homes, heat our water and houses. With wind and water power for backup, we’ve reduced our need for coal and oil to emergency supplies only—which keeps our land, air, and rivers clean.”

He dodged the “hornet’s nest” comment because the backlash would happen soon enough after the conference results went public.

“I’m looking forward to the grand tour. But the coal and oil companies aren’t going to be happy. Lumen’s success and Dr. Hibbard’s theories pose a real threat to them. Aren’t you worried?”

“Taron saw coal miners coughing up black dust, children sick from bad water and bad air from the smoke. He wanted to create a better way—and it’s time we showed the world they have a choice.”

“One more question—”

“I will be glad to talk more later,” Galen said, “but I’ve got to take care of a few things right now. I promise you—I’m easy to find.” He tipped his hat and stepped around Sara.

“Aren’t you worried someone might cause trouble to discredit Lumen?” she called after him. Galen was, but he didn’t need those comments on the record, so he picked up his pace and pretended not to hear. When he ducked into his office building, he breathed a sigh of relief.

Elizabeth Sawyer, his assistant, was waiting for him. “Where’s

the wagon?”

“Not here. For as careful as we’ve been, it just seems like stuff keeps going wrong.”

Elizabeth frowned. “It hasn’t really been that bad, has it?”

“Thank heavens we caught the problem with the band having the wrong dates. At least that got straightened out.”

“If the dishes don’t show up, we’ll borrow what we need from the townsfolk. And if the band suddenly takes sick, we’ll get Buck Henry to play the fiddle with Frank Kent on harmonica—make it a downhome Lumen evening.” Her grin let him know she was teasing.

“You’ve got a knack for looking on the bright side,” Galen said as they walked to the office they shared. “I don’t want to bungle our chance to win over the world on solar power.”

“Don’t give yourself an upset stomach over it. Oh, and Mayor Sumner is looking for you.”

Galen’s heart sank.

Elizabeth tilted her head and gave him a look like she could see right through him. “Why don’t you check on the meeting hall? Or stop by the train station and make sure the stationmaster has the guests’ arrival schedule. I’ll go back to the office and hold down the fort.”

Galen nodded gratefully and headed downtown. Lumen, West Virginia, was so different from Richmond, where Galen had grown up. He’d heard about the utopian community and its brilliant leader, Dr. Taron Hibbard, from one of Hibbard’s books. Hibbard believed that sun, water, and wind could create power equal to the coal that fouled the air and the oil that dirtied the land—and drew a philosophy of equality and peaceful self-sufficiency from that core.

The ideas captivated Galen and made him eager to leave behind the bitterness that still burned in Richmonders after the War. He’d left despite his family’s disapproval. But when he arrived in Lumen, Galen knew he had truly come home.

Galen hoped that making the rounds would clear his mind. He glanced at the rooftops, noting with pride where the solar collectors were positioned. They were strange-looking and took some getting used to. But since they meant the air didn’t hang heavy with coal smoke, Galen thought they were beautiful.

All along his route, shopkeepers were busy washing their windows and sweeping the sidewalks, preparing for the conference

that would begin in a few days.

“That banner looks great.” Galen stopped to admire the bunting that read “Welcome Attendees” hanging over the dry goods store.

“It came up nice, didn’t it?” Isaac Johnson looked at his shop with pride. “Maybe some of those conference folks will want to buy some local honey or candles—or some of Mamie Zook’s preserves.”

“The conference schedule gives them time to explore the town,” Galen promised. “After all, it’s not just about proving that we can get energy from the sun. It’s showing that all this—” He swept his arm to indicate the town “—came from Taron Hibbard’s concepts.”

Johnson leaned against his broom. “You think those fancy city folk will see Lumen the way we do?”

Galen looked up the mountain, where a row of flags next to more banks of solar collectors proclaimed the town’s welcome. “Lumen is a success. They can’t help but see it—and Taron will explain how they can make his principles work for them.”

He left Johnson to his sweeping and headed for the Collegium, where the conference would be held. The educational building was the largest in town, a combination learning center and community gathering place. Galen had been proud to gain the position of coordinator.

“There you are!” Professor Algernon, a man in his middle years with white hair and a closely-trimmed beard, hurried down the steps. Algernon put a hand to his heart. “This conference might be the death of me. The eyes of the world are going to be on Lumen and Taron Hibbard, and nothing is running smoothly. One of our speakers—Dr. Grace from the university in Pennsylvania—just wired his regrets. I have to say, for being so late to withdraw, his reason seemed flimsy.”

“He’s the expert on windmills?”

Algernon nodded. “It was odd—something Dr. Grace said made me think he was almost afraid to come.”

Galen remembered Sara’s question. “Do you think Grace was pressured to drop out?”

Algernon’s expression darkened. “I hope not—but the powers that be don’t give up their grip easily.” He gave Galen a pointed look. “You know there will be newspaper people here.”

Galen was well aware. He had invited them himself, with the promise of being the first to know what new ideas were shared and new technologies demonstrated at the event.

"I've already met one reporter—not shy about asking the hard questions. Perhaps it would be good—just for peace of mind—to send a telegram to each of the other presenters confirming the date and their travel arrangements." Galen knew keeping Algernon busy was key to not having his supervisor following his every move. "You'll feel better, misunderstandings can be cleared up while there's still time, and we'll know their plans so we can meet their trains. Plus, you can get a feel for whether anyone has made them feel uneasy about participating."

"Excellent idea. I'll go do that now."

"I'm going to walk through the building and see that the arrangements are going as they should," Galen told him, trying to move on.

"Did anyone tell you that the mayor is looking for you?"

"Yes, I'm sure she'll find me. Do you know what she wants?"

"Mayor Sumner and Sheriff Mather want to increase security. A good idea, especially if our speakers are worried for their safety."

"I hope that isn't necessary, but I think it's wise," Galen agreed. "Men like Alston Merritt don't play fair."

Merritt, the owner of Merritt Coal, had emerged as Hibbard's chief detractor. The man never seemed to miss an opportunity to belittle Hibbard's ideas and Lumen's accomplishments to the newspapers. *And if that's what he says in public, he's probably twice as damning behind closed doors to any willing ears.*

"Merritt. Bah," Algernon said as if the man's name left a bad taste. "He'll never change his mind because his money depends on keeping things exactly the same."

"Well then, we'll just have to work twice as hard to prove him wrong and do it in a big way." Galen did his best to radiate confidence.

"Go. You have plenty to do without pacifying me," Algernon said with a wan smile. He clapped Galen on the shoulder. "I believe in you, Galen."

"Thank you, sir." Galen did his best to shrug off the headmaster's anxious mood and took the stairs to the Collegium two at a time.

In a big city, a building like this might be made of granite or marble, like a Carnegie library. Instead, the Collegium was built from lumber mined on the hills outside of town, cut by the local sawmill, and built by the people of Lumen, a point of pride for the residents.

Galen went first to the large main room where a stage and podium awaited speakers. A huge slate board gave the solar technology inventors a way to share their equations with their audience.

"It's not fancy, but then again, neither are we." Annabelle Larkin came up behind Galen while he was silently counting chairs and checking on the seating arrangements, startling him. The plump, gray-haired woman chuckled at his reaction. "Sorry—didn't mean to make you jump. We'll pretty it up with flower arrangements and hang some quilts and artwork on the walls. That'll give us another way to show off what people here do with their spare time."

"It's going to look amazing," Galen told her. "You're doing a great job pulling everything together." Annabelle headed up the Lumen Merchant's Guild. Galen trusted her to set up the presentation area and to use her influence to fill the seats with contacts from Charleston and Wheeling, where she and her late husband used to run a small newspaper.

Annabelle snickered. "Glad you agree—since I didn't have a Plan B. Go harass the people with the display tables. Leave me in peace."

"Don't worry—I'll be back," Galen joked.

"Since you're here, let me introduce you to someone." Annabelle motioned to a woman with brown hair that hung in a waist-length braid. "Galen, I'd like you to meet Sara Jackson. She's with the *Charleston Weekly Star*."

Galen's smile froze in place. "We've met."

"I've explained that here in Lumen, we're all on a first-name basis," Annabelle said.

Galen nodded. "Dr. Hibbard—Taron—believes that since the sun shines on us all equally, we should all have equal rights, voices, and votes. Being less formal brings us together."

Sara gave him an assessing gaze. "Did you memorize that for showing newcomers around Lumen?"

"No, ma'am. I read all of Taron's books. That's why I moved to Lumen not long after he founded the community," Galen replied.

"Why don't you take Sara with you to the business display room, maybe show her around?" Annabelle nudged.

"I'd love to get a sneak peek," Sara replied. "And since you're well-versed in all things Lumen and Dr. Hibbard's work, I have plenty more questions."

"I'm sure Algernon would be a better source—" Galen protested.

"I'll talk to him at some point," Sara said. "But I'd like to hear about Lumen from someone who isn't one of the folks in charge."

Annabelle gave Galen an encouraging nod. "Don't worry. Sara doesn't bite—unless you run a coal mine or a steel mill. She's written some scathing exposés."

Sara slipped an arm through his. "Now, about this business display..."

The display room was also the community gymnasium. Tables around the walls showcased Lumen's thriving crafts and businesses, which sustained the town and created outside trade.

As they moved from table to table, Galen made introductions and kept up a running commentary. He set the tradespeople at ease, relaxing them enough to answer Sara's questions.

From Annabelle's comment, it was clear that Sara didn't shy away from exposing corrupt business practices or companies that endangered their workers. Galen admired her courage. That type of reporting made dangerous enemies.

"I'm impressed," Sara said as they left the building. "It's practically a world's fair in there."

Galen smiled. "You're too kind. The scale is a bit smaller, don't you think?"

"Lumen is quite industrious. You use energy captured from the sun in those funny things on the roof to make your own electricity and heat your homes. You brew beer and make whiskey, keep bees for honey and candle wax. The pottery and baskets are exceptional, as are the quilts. And the weaving and lace-making were as good as any I've seen."

"All the yarn is dyed here, from colors made from plants we cultivate," Galen told her as they walked toward downtown. "The conference meals will be made from what we grow and raise. No one here is wealthy, but we're all comfortable."

"That's an improvement on the world outside Lumen," Sara replied wistfully. "The differences out there grow more extreme every day. In Pittsburgh, it's dark at noon from the factory smoke."

"The philosophy behind Lumen came from Taron's love of the sun and its energy," Galen went on, playing tour guide.

"Transparency in all things to let the 'light' shine through. Honesty is the soul-sun that nurtures good relationships and a healthy community."

"And all this is actually real?" Sara gave him a skeptical look.

“We’re not perfect, and sometimes people disagree. But we have processes in place to settle disputes fairly, without regard to rank.”

“Keep talking, and I might ask to stay here.”

“That’s what happened to most of us. Be careful—we might steal you away!”

“Back to my question.” She grew serious. “If Lumen’s conference changes the minds of the influential guests, there’s going to be hell to pay. Are you aware of the article Merritt just wrote for the Wheeling paper? He made Hibbard sound like a dangerous crackpot.”

Galen winced. He’d seen the article—Algernon had made sure of it. “Let him talk. We can prove our claims and, once we show our results, everyone will know Merritt and his ilk are just blowing smoke.”

Sara gave him a sidelong look. “There’s a lot of money to be lost if solar energy replaces even a fraction of coal and oil. People have done murder for less.”

“Murder?” Galen looked at her, surprised.

“Hibbard isn’t the first person to try to harness the sun,” Sara replied. “I’ve been chasing rumors that some of the big engineering companies in Pittsburgh were pressured not to put their efforts into moving away from fossil fuels.”

Galen had heard the same from the inventors who frequented Lumen, sometimes working with them in secret to not lose their jobs. He just hadn’t thought the news had leaked.

“Don’t look so surprised. I have my sources.” Sara chuckled.

They walked through Lumen’s small downtown, taking in the shops, produce market, and main park. “The conference is part of a larger event, isn’t it?” Sara finally asked.

“Our summer solstice festival celebrates the sun and everything that comes from it. It’s a week of music, special foods, games, and a contest for the most useful solar inventions. The whole thing is capped with the conference, bringing in ‘idea people’ and investors to take solar to the next step. This year is the largest-ever. It’s Lumen’s tenth anniversary.”

“Utopian communities don’t often last so long,” Sara observed. “Lumen’s done very well.”

Galen grinned. “I hope you’ll see how true that is after you’ve heard all the speakers. There’s so much more than I’ve had time to tell you.”

He dropped Sara off at Annabelle's house where she was staying and promised to answer any further questions the next day. The Collegium had a dormitory for visitors, but it lacked the comforts and privacy of staying in a private home.

"Galen!"

He turned to see Rhys Lagron, the town's master weaver, hurrying to catch up. She was a thin woman with sinewy arms from working the loom. Her dark hair had strands of gray, framing a handsome face.

"What can I do for you?" He felt a stir of worry in his belly.

"I had a vision while I wove," Rhys told him. "I saw danger but not the cause of it. I know that it's coming soon, and it will be close to you."

"Did you see anything else?" Rhys's visions were always true, but they could be difficult to understand except in hindsight.

"I saw barricades and a knife." She dropped her voice. "I'm sorry—these things aren't always clear."

When Hibbard created Lumen, he welcomed secular psychics to sense the "health" and energies of the land so the town could remain in harmony with nature. Those who came had varying clairvoyant gifts. Rhys's ability gave her glimpses of the future.

"Thank you for the warning."

"If I see more, I'll tell you immediately," the weaver promised and turned back to her shop.

Galen tried to quell the uneasiness he felt, but it only grew as he approached his office and realized the mayor and sheriff were sitting inside

"I couldn't really ask them to stay outside," Elizabeth said apologetically, catching him as he approached. "So I brought them in and made coffee."

"That's fine." Galen glanced toward his visitors. "Did they say why they're here?"

She shook her head. "No—but they look rather...somber."

Galen sighed. "All right. I might as well find out what's going on."

He managed a nervous smile. "Mayor. Sheriff. I understand

you've been looking for me. Forgive the delay—the conference is rather all-consuming at this point.”

Mayor Wallis Sumner was a distinguished woman in her late fifties, a matron of the community, and the overwhelming choice when Lumen's first mayor stepped down after five years at the helm. While a woman in her position might be remarkable outside town, Hibbard's principles enabled Lumen's residents to pursue whatever best suited them.

Duncan Mather, the town's sheriff, was in his late thirties with short blond hair and sharp blue eyes. He spent most of his time dealing with quibbles between residents or handling the occasional wandering drunkard, no doubt a welcome change after being the top cop in a steel town outside of Pittsburgh before moving to Lumen.

“I originally wanted to ask if we've organized a tour of the workshops for our guests,” the mayor said, “but we have more worrisome things to deal with now.”

Galen felt his gut tighten. “Worrisome?” He looked to Mather.

“We found your missing shipment,” the sheriff said.

“That's good, right?” Galen's voice trailed off at Mather's expression.

“The wagon was in a ditch about ten miles outside of town, boxes broken open and the contents smashed. We found the wagon driver wandering a few miles away, beaten and bloody, but alive.”

“He's been taken to a hospital, and his injuries aren't severe. He said that robbers ambushed him,” the sheriff went on. “Which seems strange to me. We've never had an issue with deliveries before, and the contents weren't particularly valuable.”

“There's been a big wreck on the railroad line between here and Charleston—where most of our speakers and guests will be coming from. A switch didn't get thrown and two cargo trains collided. Three men are dead and the track will need to be repaired,” Sumner chimed in, her voice laden with suspicion.

“When?” Galen's mind spun.

“Today,” Mather grumbled. “Too late for many of our

attendees to change their tickets or even find out about it. We'll need to run wagons between Lumen and the station and recruit drivers. It'll be chaos."

Could our luck really be this bad? Galen thought about Rhys's warning.

"I'll get Elizabeth working on the wagons," Galen promised. "We'll rustle up plates from the townsfolk. Maybe mismatched dishes will become a Lumen tradition."

"Keep your eyes open," Mather said as he and Sumner took their leave. "There's something off about all this. I don't know what's going on—but I intend to find out."

Galen found Elizabeth waiting in the hallway outside. "You heard?"

"I've already started a list of people with wagons we can pay to go back and forth to the train station. It won't be fancy, but it beats walking!"

"I'll talk with Jake Carver and see if he can help us round up enough of the dishes he's made for the dinner guests. It's a great way to show off his pottery. And if I wire a message to Adam Farber, he might be able to bring some spare parts with him to replace the ones that were destroyed."

Now that they had a plan, Galen felt the tightness in his gut ease. *Maybe the "danger" Rhys saw was what would happen if we didn't make alternate plans.* He wanted to believe that. *But if there's no real threat, why did she see a knife in her dream?*

"Have you seen the headmaster?" Galen asked. "I want to find out how his telegrams went."

"He headed up to his office just before you came in."

Galen took the stairs two at a time. When he saw his boss pacing, Galen feared the worst.

"Professor? What did you hear from the attendees?"

Algernon's mussed hair suggested he had been running his hands through it. "Galen. Glad you're here. It was almost a total mess."

Galen's heart dropped like a rock. "What happened?"

Algernon sighed and fell into the chair behind his desk. "It's

fixed—thanks to you suggesting the telegrams. The speakers had gotten letters with conflicting dates, and some of them told me they'd had 'advice' that coming here might have 'repercussions.' I did my best to reassure them and let them know about the train wreck. But if I hadn't confirmed with them, the most important guests might not have made it."

"Did everyone get bad information? Or just the key speakers?" Galen asked, suspicions rising once more.

"We didn't check with every attendee, only the speakers, investors, and main inventors."

In the street outside the office window, Galen saw men running. *What now?* "I'm glad it all worked out. I need to go look into something." He hurried away before Algernon could ask questions.

Galen ran down the stairs and out into the street. "Hey! What's going on?"

"Sheriff asked for help clearing the train wreck," one of the men replied. "Put out a call for everyone to lend a hand."

We have one day until the guests start arriving. Whether we've been hexed or there's someone causing problems, all we can do is keep plowing ahead—and double-check every detail.

* * *

For the rest of the day, Galen was in constant motion, shuttling between Elizabeth at the office and Annabelle at the community center.

Galen couldn't shake his uneasiness. He ate a sandwich at his desk and snagged a couple of cookies for supper between confirming the menus with the cook and ensuring that the dormitory had rooms ready for guests. Then he grabbed a lantern, since it was already dark, and headed back to check the community center.

"Nana Jean?" he whispered.

The ghost raised her head and met his gaze with an expression of warning. In the next heartbeat, the figure vanished.

"Galen—are you all right?" Sheriff Mather looked at him with concern. Galen hadn't even heard him approach. "You were

staring like you saw something.”

Galen shook his head, still trying to guess the apparition’s meaning. “Just deep in thought about what needs to be done. Everything go okay with the wreck?”

Mather grimaced. “We cleared it, but we also found out that the switch that was supposed to put the trains on different tracks wasn’t just in the wrong position—it was jammed that way.”

“Sabotage?”

“Looks like. And murder, too. Plus, someone put an ‘Unsafe’ sign and a barricade on the Cold Creek bridge. The mayor didn’t know anything about it. I’ll have to get a county engineer out to find out what’s wrong—and figure out who placed the sign.”

Galen met his gaze. “The road over Cold Creek would be the most direct route to bring wagons from the train station. Without it, people would have to go twenty miles out of their way.” A *barricade, like Rhys foresaw.*

“I don’t know what’s going on, but I intend to find out,” Mather said. “There are plenty of people with reasons to not want Lumen to succeed.”

“Let me know what you discover. I’m double and triple-checking everything. I’ll sleep better that way.”

“I hear you. Just—be careful. We don’t know how far the troublemakers will go,” Mather replied and headed toward his office.

Most of Lumen’s residents and visitors were busy eating dinner. The shops were closed, and solar-powered streetlamps glowed. Galen turned over the day’s events in his mind and jumped when he heard footsteps behind him.

“Do you think the train wreck has anything to do with the conference?” Sara looked as fresh and energetic as she had that morning.

“Don’t know—but it’s an unlikely coincidence, isn’t it?”

“Can Lumen protect its guests if there’s trouble?” she pressed.

“We have a plan in place.” Much as he liked Sara, he didn’t forget she was a reporter looking for a scoop—and apparently had

an axe to grind. He didn't want to get quoted wrong.

"Does that plan include you traipsing around in the dark, checking buildings?" Her grin let him know she wasn't taking herself too seriously.

"Seems like you're 'traipsing,' too. Care to share why?"

"Just soaking in the local flavor and enjoying the clean air." Sara gave an exaggerated inhale, arms thrown wide. Despite himself, Galen chuckled.

"You're welcome to join me, but I'm hoping it'll be really boring."

"Can I still ask questions?"

He nodded, and she fell into step beside him.

"Then count me in."

Galen could tell from the darkened meeting hall windows that the volunteers had finished their work for the night. The building's architecture maximized natural light with a backup of solar-generated electricity, but it would be wasteful to leave lights on when no one was inside. That's why the glimmer in a basement window caught Galen's attention as he walked around the outside with his lantern.

"Is someone supposed to be inside?" Sara asked.

"Not in the basement. If there'd been a maintenance problem, I'd be told about it, and the handyman would turn on the main lights." Galen turned around to call for Mather, but the sheriff was nowhere in sight. *It might be nothing—but I'd better see for myself.*

He shuttered his lantern enough to conceal their presence and headed to the basement door, which stood ajar.

He glanced at Sara. "Stay out here."

"Are you kidding?" She was holding a small baton like the police carried; Galen guessed she'd had it in her bag.

He sniffed the air. "Do you smell smoke?"

"Yeah. That's not good."

Galen sidled down the steps with Sara close behind him. He saw flames in the far corner of the room.

“Get the sheriff!” he ordered. “I’ll try to put it out.”

Sara turned and ran for the door.

Galen hung the lantern from a hook in the ceiling and grabbed a thick blanket thrown over some stored furniture. That’s when he saw a shadowy figure heading for the steps.

“Stop!” Galen could only see the man’s back. He lunged toward the intruder, not entirely sure what he would do if he caught him. The man turned and pushed hard, sending Galen sprawling. A hat and scarf hid the man’s face, and the dark, boxy jacket gave no indication of his real size.

Before Galen could gather his wits and pull himself to his feet, the intruder vanished up the steps and out the door.

Galen hesitated, torn between wanting to catch his attacker and needing to stop the fire. He wet his scarf and pulled it over his mouth and nose. The smoke in the basement had grown thicker and Galen knew he only had minutes to either put out the fire or flee.

When he saw the fire burning in a tumble of boxes and papers, Galen knew he couldn’t smother the flames with his blanket. Then he spotted a wrench and the water main.

“Here goes nothing.” Eyes watering from the smoke, he put his back and his full weight into loosening the valve, sending water gushing from the pipe and covering the floor. Galen grabbed a bucket and scooped it full from the stream to help douse the area.

What a mess. He looked around at the sodden floor and burned boxes. *If I hadn’t been poking around, we could have lost the whole building.*

Galen jabbed at the smoldering remains with a rake, adding buckets of water until nothing was left except ash slurry. He made sure nothing else had been tampered with and went outside. Scratches around the lock told him it had been picked.

Galen had barely snapped the lock closed when a dark form tackled him, slamming him against the side of the building. Galen struggled to free himself, and his head spun as a fist connected with his jaw.

In the moonlight, he recognized the silhouette of the man

from the basement.

Galen wasn't a large man, or particularly brawny, but he'd been a wrestler in school and he knew how to break away from a hold. He twisted free and threw a punch, striking his assailant in the eye.

The man yelped in pain and shoved Galen to the ground, landing a solid kick before he took off running.

Galen froze in shock. He tasted blood from a split lip and figured he'd have spectacular bruises from where the man had kicked him in the leg, but he didn't think anything was broken. He dragged himself to his feet and limped to the street in time to see Sara and Mather heading his way. The town's fire alarm pealed in the distance.

"Galen—are you all right?" Mather looked him up and down, no doubt taking in the soot and smell of smoke. His eyes widened when he saw Galen's split lip. "What happened? Is the fire out?"

The sheriff listened as Galen told his story. The fire wagon raced past them, and Galen unlocked the basement door so the firefighters could ensure the danger was over.

"I don't know where the guy who tackled me went or whether he might have friends," Galen concluded.

"I'd already recruited security patrol volunteers," Mather told him. "Just didn't think we'd need them before the event even started. How about I walk you and Sara to where you're going? I'll make sure someone's watching the Collegium and the community center all night."

Annabelle was waiting on the porch when they brought Sara to her house, clearly worried from the fire alarm. The two men were tense on the short walk to Galen's place, and the sheriff kept his hand on his gun the entire way.

"Put a cold rag on that lip and try to get some sleep," Mather advised. "I'll have deputies on patrol. We'll find the guy who did this—and make sure he can't cause any more trouble."

Galen thanked him and went inside, double-checking the locks on doors and windows and making certain no one was hiding in the closet or under the bed. He washed the blood off his

face, grimaced at the size of the bruise on his thigh, and hoped tomorrow would be much less exciting.

* * *

The next day marked the formal start of the conference. Galen chewed willow bark and stayed busy enough to ignore both his lip and his leg most of the time. He confided the full story to Elizabeth and Annabelle and came up with a vague excuse for his injuries if anyone else asked. Algernon was overwhelmed escorting the speakers and didn't seem to notice.

Sheriff Mather remained visible throughout the morning's preparations. Galen spotted several other deputized volunteers stationed around the event area where they could keep an eye out for trouble. Galen was happy for the support, but he couldn't shake the feeling that they hadn't seen the last of the intruder.

An hour later, when most of the guests had been ushered inside and the speakers were safely delivered to Algernon backstage, Galen let out a hopeful breath. He met Taron Hibbard on the meeting hall's front steps to escort him to the podium, self-conscious about his puffy lip. *I look like a ruffian.*

"I know you and your team have put a lot of work into this conference," Hibbard said as they walked up the steps. "I appreciate everything you've done. If we can sway the investors in the audience and bring a couple more inventors on board, I believe we can win more towns and cities over to the promise of solar energy."

Galen had only an instant to see the man coming up fast behind them. Beneath his hat, the newcomer sported a black eye.

"Get down!" Galen put himself between Hibbard and the intruder as two deputies ran toward them. Steel glinted in the sun as the man's knife slashed toward Hibbard.

Galen blocked the blow with his forearm and cried out in pain as the blade cut deep. He shielded Hibbard with his body as all hell broke loose around him.

The sheriff joined them as Hibbard gently pushed Galen away and stood, looking at Galen's bleeding arm with concern.

"You protected me," Hibbard said as Galen wrapped his hand around the slash to slow the blood. "Thank you."

“Let’s get you inside,” Mather said to Hibbard. “And get you to a doctor,” he added with a look at Galen.

“It’s not too bad,” Galen said through gritted teeth. “I can move my fingers.” *He had a knife, just like in Rhys’s vision.*

Mather’s no-nonsense expression made it clear he wouldn’t change his mind. Galen trailed behind as the sheriff delivered the town founder into Elizabeth’s care in the lobby, then took Galen by his uninjured arm and hustled him down the street to the doctor.

“I don’t imagine you could be persuaded to go home and rest?” Mather asked as the doctor examined Galen’s arm. “You’ve had a busy couple of days.”

Galen shook his head stubbornly. “I’ll rest when everything’s over—I promise. But I want to make sure things go smoothly and see the reaction to the presentations today.”

Mather sighed in resignation and the doctor shooed them toward the door once Galen’s injury was treated and bandaged. “Be careful. I’ve got more volunteers on patrol. Let’s hope they’re not needed.”

Galen returned to the meeting hall just as the crowd rose to a standing ovation, giving Hibbard a round of thunderous applause. Galen stood in the back with his injured arm in a sling. Despite the pain, he couldn’t help smiling at the enthusiastic reception to Hibbard’s presentation.

“They don’t know that you saved his life.” Elizabeth slipped up beside him. “But of course, Sara caught wind of it, and I don’t imagine she’ll let it rest until she knows who put the stranger up to the attack.”

Galen chuckled. “I have full confidence she’ll figure it out. What about the investors and the dignitaries? After all the work to put this together, I feel like I’ve missed the whole thing.”

Elizabeth shook her head. “You just missed the talking part. Taron thanked you by name for all your work and acknowledged the rest of us as well. Annabelle said the delegation from Upstate New York and the group from Ohio were very interested in the crafts and trade exhibits and wanted to know details on how everything solar works.”

“That’s good, right?” All the excitement, plus blood loss and skipping a few meals, made Galen lightheaded.

“I overheard Mayor Sumner talking with the inventors and they want to come here to do research on new solar technology. She’s going to introduce them to friendly investors at a private dinner tonight,” Elizabeth confided. “And I saw Taron with those investors from New York City. They looked very pleased. Someone said they invited him to come speak. So I think it’s all gone very well.”

“That’s good,” Galen said. “Lumen deserves to be recognized the world over.” He staggered, and Elizabeth braced him.

“Go home,” she told him. “Rest before the dinner tonight. And don’t worry—we’ve got the dishes taken care of,” she added with a smirk.

Much as Galen wanted to argue, he knew that he was fading fast. “Send someone to the house to bring me back in time,” he told her. “And if you need me—”

“We know where to find you. Now, go.”

A few hours’ rest made a remarkable difference. Galen managed to attend the dinner, even if he remained quieter than usual, and let Elizabeth and Annabelle do more of the socializing. He felt a surge of pride and, from across the room, Hibbard caught his eye and raised his glass in a silent toast.

Rhys slipped up beside him during the reception. “Did my vision help?”

Galen nodded. “Yes. Thank you. Have you foreseen anything else?”

Rhys looked at the happy crowd milling around and talking with each other. “I had a vision of sunny skies. It’s a good omen.”

Galen nodded, pleased and proud. “Lumen deserves it.”

That night, once the guests had gone back to their quarters and the clean-up crew put the chaos of the evening in order, Galen sat on the couch in his parlor, exhausted but too jittery to sleep. A knock at the door startled him and, to his surprise, he found Sheriff Mather on the porch, holding a jug of whiskey.

“Thought you might still be awake and want a nightcap,”

Mather said.

“I think that’s an amazing idea.” Galen stood aside so the other man could enter.

“By the way, the sign on the bridge was fake. The engineer vouched for its safety. One more bit of malicious tampering.”

Mather sat down at the kitchen table and Galen brought two glasses. “I’d say we both deserve this after a day like this,” the sheriff said, and poured them generous portions.

“To Lumen,” Mather said, lifting his drink in a toast.

“To Lumen,” Galen echoed.

“Thought you might like to know, the man who attacked you and Hibbard sang like a canary once we had him in jail,” Mather said after he’d taken a slug of his drink. “I’ll skip the details, but it didn’t take a master sleuth to trace his connections back to Alston Merritt.” Mather knocked back the rest of the whiskey. “Which I might have let slip to that intrepid reporter you were squiring around earlier today. I imagine it’ll be the talk of Charleston and elsewhere once her article hits the paper.”

“Imagine that.”

“Oh, and the mayor said to tell you congratulations on running the event.” Mather poured himself more whiskey and topped off Galen’s glass.

“Nice to know. Algernon said something in passing about giving me a raise. We’ll see if he remembers come Monday.”

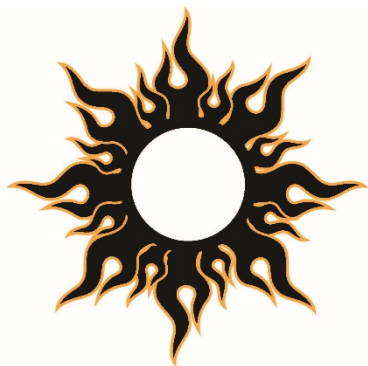
“One of Hibbard’s investors just earmarked money for more deputies, so something like the attack doesn’t happen again. Didn’t expect that, but I sure won’t turn it down. If Merritt sees Lumen as a threat, so will others like him. Better safe than sorry.”

They finished their drinks and Mather left the rest of the jug with Galen before heading home. Galen toyed with his empty cup, thinking about the day, finally tired enough to sleep.

It ended up being a very good day for Lumen.

He got ready for bed and, just before he drifted off, Galen caught the scent of gingerbread and rose perfume, his grandmother’s favorites, a sign from beyond of praise and blessing.

A very good day, indeed.



INTERVENTIONS

by Sharon Lee & Steve Miller

“Octopus! Migraine Octopus!”

I was stunned, and Bugle was licking my face with a whine, leaning against me as I was slumped against an old-growth oak. There was a lot of green around me—and I’d taken a blow to my shoulder and maybe the side of my face or...

“Octopus! Migraine Octopus!”

There it came again, that’s exactly what I’d heard. Bugle leaned harder, trying to give me access to his harness, where there was a back-up comm unit and a first-aid kit.

Then I heard my name called for sure...

“Alberte Magnus! Are you injured?”

That was who? The pastor? Pastor Fred?

Against a background of the sighing of wind in the trees there were other sounds now, some quiet cussing, some complaints about slipping, and birds in the distance—ravens, perhaps, and that “tret, tret, tret” I didn’t recognize, coming from somewhere nearby.

“I’m sorry!”

That from one of the young scouts—

Yes, there I was supposedly guiding a tour group through the wilderness and I was...

“Owww...don’t!”

That was one of the four scouts who'd been rushing despite my warnings about old stone fences and...

Hands lifting, and Bugle angled away slightly, a sign that no, I hadn't been attacked but had fallen when the stone wall'd given way. The pastor and Edna held me steady and, in a moment or two, helped me to stand, while the scouts gathered around one of their own.

"Sit quietly!"

That from another voice not next to me, to the injured scout. I took a deep breath, pulled myself together, heard "tret tret tret" flying by and a young voice reporting to someone rustling in the leafy underbrush a few feet away.

"Don't worry about the bird, dummy. You've sprained your ankle!"

"And you, Alberte, you'll look like you've been in a fistfight!"

* * *

Earlier in the day I'd landed to find the group well ahead of me despite that they were not to go wandering about unshepherded through the woods. They hadn't waited and now I had to treat them as intruders until I got their IDs down tight.

"Atenton!"

Too quiet, my mic was off-line, network and speaker. I slapped the button and tried again.

"Atenton! Atenton!"

This time the words at least went out through the loudspeaker, though the net still searched for connection. My words weakly echoed through the woods. My fault in being the youngest in a long line of island-bred rice-, fish-, and bird-eaters, I guess.

A zone news update flashed by on the capscreens. Population trending down; North America down to 625 million and the whole shebang down to 9.1 billion, give or take some cheating here and there as Africa and Asia battle their mysteries and manifestos. AQ of 22 for the local workzone, too, now that the western fires were quenched and the jetstream working the leftovers elsewhere. Always check Air Quality Index when you go out—a lot of people think they're tired when they're under the spell of pollution.

My numbers on the day put me at 26.6 years, 5.5 circums of carbon credits, personal mass at 45.1 kilos of the expected 48—nothing new there—I'd been smallest in my class most of my school years.

Bugle's numbers read out, too—forty-four months old, 35.1 kilos—as usual 10 less than me. It was a good thing he was working on my side.

The speaker'd worked enough that my audience had heard me over the raven and squirrel argument in the hardwoods at the forest edge. The other sounds were avians in the forest—my training pulled out a couple of warblers, a red-tail hawk, some swallows, and a soft “tret, tret, tret” I couldn't quite place.

My eyes adjusted to the undergloom and I could see faces framed in hats and hiking gear looking up the hill at us. We pushed on down, me pleased that the day's temps were moderate, with a nod toward 24C due in the late afternoon according to the capscreen. Those in the deep of tree shadows were taken by surprise until someone with more wit or better vision spoke up.

“They're the Heritage. Your contact, Pastor. Pastor?”

“Heredajo,” said one and it repeated with a variety of inflections as the news rippled among them, along with furtive glances. You don't have to be doing something wrong to wonder if you did something wrong when someone in uniform shows up.

The mic finally locked on the network, and that meant anyone with buds on should hear me now.

“Atenton! Heritage Patrol present. Stand by, please. Will anyone need a translator? Traduko iu ajn?”

I had their attention, no takers.

“I am authorized to observe, record, and report on any activities deserving of such treatment in this locale. I am authorized to act as, or in the stead of, local law enforcement. We are in a Heritage-certified Heritage Habitat Exclusion Zone.”

The spiel was met by careless gestures and a vague smile from someone who'd figured someone like me would show up, since they were supposed to be my charges for the day. Some eyes went toward the deeper woods, others to the one in the newest-looking beanhat.

I sighed, touched the front visor of my soft cap, and nodded in the direction of that probable forehand.

I snapped my fingers three times, cluing Bugle he was on duty now—though clearly from his demeanor he'd thought that as soon as we landed—and brought Fizzy One and Fizzy Two to follow mode, where they sailed three meters behind me and two meters behind Bugle as we traversed the slowly wilding campus of the long

abandoned district rest home.

I'd followed the GPS map to get here, over the herds of deer, a swamp with moose pair in it and a bear at bog-edge, to the head of the turnoff from the now deprecated Route 9. A hundred clicks over new growth forest, unremediated farms and houses with fallow lawns, then over tendrils of an undammed lake's old shoreline.

How they *got* authorized I wasn't sure. I hate to always be suspicious, but that's what this part of the job called for, wasn't it?

I'd arrived a full half-hour early to find an untenanted surface-hugging Arvie parked beneath panels, a cramped Fluentia quad copter, both along with a modest under-tent meal table set-up, also untenanted. Then I'd tracked them to the woods edge. It was Bugle who tracked them into the woods.

The forehand wasn't old and had the deep suntan of someone who worked in the weather, the short denim-look sleeves hugged arms showing muscles built by work and not by reps. There were few tats on those arms, but I saw two recognizable union tats—one a New England remediation local and the other from a hardcore Pacific remediation group famous for doing island work in dangerous conditions. I couldn't read the details at this distance—they might tell me if this was an intern who'd survived the year of the five chain-storms or not—but it impressed anyway, for that work might have been done where my great-great-greats had waked to a morning with a cyclone bearing down on them from one direction and a tsunami from another.

I tried not to stare—certainly this good-looking city person might be in decade three plus but was worth looking. Which wasn't why I was here today, so I pushed through, keeping my sigh quiet and reinforcing my nod of recognition.

Among the crew I saw a handful of active beanhats, all carrying modest backpacks and belt-stuff, expectable for folks walking where people hadn't in years. The four youngest had scouting woods-and-forest uniforms on, with shiny kit that had probably never been opened in the wild.

The forehand gave a plain-faced nod in return to mine, said something quiet that got echoed to the other beanhats by the mic, at least, and the *tools-down* was clear enough.

Attention came my way when I stopped in front of the foreperson, that is until they saw Bugle and Fizzy Two. A Nois can be a sight to see, especially one that has earned a see-all drone of its

own and is bearing down on you with interest.

“Disaster dog!”

I saw interest and not fear. Thirty-five years after the December riots there are still cits who’d rather not have anything to do with dogs or dog handlers. With the fading habit of keeping unregulated pets it was possible that some had never met a working dog, especially a Malinois in full bloom. The scouts looked respectful, and stood carefully back another step, but unafraid.

I smiled at the scout, shaking my head, and said, “Not Disaster Dog. Patrol Partner.”

I looked at the foreperson, then tapped the front of my vest-cam to open channel D so my rig bounced live signal to my landed flipter and relays.

“I’m Senior InSitu Facilitator Albie Magnus, and that’s Bugle wearing the travel harness. We’re both cross certified as Remediation Investigators. I must inform you that you appear to be —” Here I pointed at the foreperson. “—about a hundred fifty meters inside a multi-agency Heritage Habitat Exclusion Zone. You were to wait for the facilitator—that’s me. Your timelines should be able to tell me how long you’ve been wandering...”

I paused, the raucous woodpecker call having broken the concentration of my listeners. Or maybe it was my mention of their timeline—who thinks about it except those who are regularly traveling outside their zones? Everyone gets tracked, everyone’s travels are turned into carbon—and only folks required to travel by job can free-range often. With circums limited right now to balance that last set of Saharan heatwaves, the ancient days of simple tourism were staying far away. Me? Inside a zone their records were open to me.

“Caw, caw, caw” rasped a raven nearly overhead, startling us human interlopers, and echoed by a “Tret, tret, tret!” I didn’t recognize, from deeper in the woods. The scouts whispered among themselves.

I suppressed a smile, nodded to the foreman, then the youths.

“City kids?” I asked.

“Yes, East Coast all, including me.”

His tag said Nguyen Joe, and I shrugged. City kid with union time in the Pacific! He’d seen my arms—Greater Appalachian Heritage Studies Union on the left and Multihemisphere Heritage Enforcement Union on the right. He’d likely recognized the stripey

clef-sign just above my wrist because his glance had lingered there. Music, a common bond, through the Union of Public Musicians. I wondered what he played.

I turned to the rest of the group.

“There’s a myth among city travelers that in ‘the woods,’ everything will be quiet and serene. Not true! The wild talks to you as much as the city does—no sirens or horns, maybe, but disturbed ravens may well mean something is coming your way! When the wildlife is alert, you should be, too.”

The scouts may have looked wide-eyed, but that could have simply been from Bugle walking among them, carefully sniffing packs.

“In any case, since you’re civilians, supervision within Heritage zones is required by the Reykjavík Accords for International Geophysical Remediations, 2103, as based on the Potsdam Cycle of Non-Governmental Interventions through Boosted Population Loci.”

“We’re a pre-survey group. I thought we’d permissive access.”

I sighed. Pre-survey teams were allowed responsible access in northern North America. I should have been better warned, of course, because that made them a little more official. If they were that official, I could have had their IDs ahead, which I hadn’t.

Foreperson looked at their hands as if secret numbers were projected there for them, but looked up, making a “thinking hard” face while Bugle politely approached and sniffed vaguely at the person’s backpack.

“We applied through channels—well, the Pastor applied. We have a properly diverse group of interested citizens. Three from Zone 137, two who have volunteered from Zone 136, and three from 87. The Pastor’s an Independent Spiritual Heritage Team all by himself. That’s him, Edna, and the scouts from the pastor’s church troop. He’s zone free, I think.”

Indies. Not only self-appointed Units, but a Spirit Team. Oh jeez, I’d hoped to get by with a warning that private picnics and orgies had better, non-invasive places to be, but this was no such group.

The foreperson waved into the deeper bush when he mentioned the Spiritual Team, which looked a lot like a signal, and Bugle gave a kind of happy bubbling sound that wasn’t a bark and wasn’t a warning, looked to my face, and accepted my hand signal

as confirmation, moving off into that deeper bush in a hurried straight line, tail on alert.

“For a pre-survey? You’ve got more of a crowd here than a lot of remediation teams have, and it looks like you could start work in an instant if you wanted to. We’ve got to be sure that...”

“Yes, you do,” came a voice from the near brush, with Bugle prancing beside them with a “Look what I found, boss!” air of success.

The speaker carried their beanhat like they didn’t need any of the info—or head protection—that it might impart. They waved it vaguely for emphasis.

“You’ve got to be sure. And so do we. Edna and I haven’t been here for years, and the rules have gotten stricter. Spirit teams didn’t need permissions two decades ago!”

The person had silver-gray hair, close-cropped in front of the ears where it might be receding anyway, but going long into a back-length braided ponytail, with multiple bindings. They also had smile lines with lots of use and a chestful of shimmery dangles on cords, fine chains, strings.

I sighed again. Exactly the kind of get-up an indie spirit-type might be expected to wear, and an excellent way for a freedom-forager to take a fresh-found ring and turn it from *just found* to a long-time personal herit. From herit to the street didn’t take long...

“I am Reverend Fred. You may call me Fred or Reverend Fred. Until I got my calling and retired to my own church, I was Chief Instructor in Cartographic Analysis for the Joint Appalachian Meteorologic Climatology Institute, Hagerstown. I taught your boss, among others. Now I support those who commune with nature, those who should commune with nature, and I teach Latin.”

He half-bowed toward his associate, a long-haired woman who wore a sensible light jacket over a tee, and a plethora of necklaces and beads that looked out of place in the woods.

“This is Edna. Doctor Edna Macsin. She’s a recursively-souled priestess as well as a fine poet with a definite Druidic bent.”

I nodded.

“Since you started without me I need to be sure that you’re all who you say you are, have the proper carbon rating. Assuming that’s the case, I’m to accompany you as active staff witness, so I’ll file an Accidental Breach of Exclusion Boundaries report. One of you will have to witness it. “Understand me, please. A group this

size, acting inadvertently, can change the local ecological, geologic, and archaeological status in ways that violate exclusion zone principles.”

It was then that a pair of nighthawks found the highest local trees and began a noisy, swooping bug catching contest, close enough that the boom of their wings caught my ear.

“I need to have a head-count. I’ll talk to some of you individually, right? Perhaps we should begin now. I do wish you had waited for me.”

Reverend Fred called for a snack-break so I could work. It was Joe who did the group headcount, Joe who knew everyone’s names by sight, Joe who had the handheld with credentials. I walked among them calling out names, Bugle by my side, as their own handheld cross-checked with Joe’s as I skimmed along reading their backgrounds.

Joe could step on a plane or train anywhere and travel a couple times around the world without exhausting his carbon count for the year. Mine was like that, too, but mine was family survivor stuff—the islands taking most of my great grands and then disappearing—those had added up to scholarships, multiple citizenships, and a two-circum-a-year carbon travel allowance until I hit fifty, and twice that then. My job fed me more travel...

His—his looked like they were all duty-earned, just like the tan. Not an old guy, but he’d already spent more than a dozen years on island work...and here he was, north of BosMass, running with a bunch of locals in an action group in an exclusion zone. And then there was Edna, who might be here as a poet, after all, and a priestess, but she also was an ornithologist, with a double doctorate from the same place Reverend Fred had taught. Her background in experimental and practical ornithology meant that she, like Joe and Fred, had good carbon count to her credits, often working overseas, consulting on reclaiming avian breeding ranges for commercial interests. Industrial stuff, that was. Commercial stuff.

The thing is that—the important thing is—exclusion zones are to be free of direct economic activity. No one should live inside an exclusion zone, build anything inside one, or take physical resources out. Ecological preservation is important, reclamation the goal. Fallow is fine.

Reclaiming equals remediation in many areas. If private-citizen-you knew of an abandoned house—or an abandoned town!

—you can't go in and strip it of metals, unless you were part of a remediation team. The goal is to return land to a natural, or in North America, to a pre-colonial, state. Doing remediation, you removed what wasn't natural. Anything useful was to go to the world remediation fund—after a Heritage check of course—as soon as possible. As declining populations stabilize, the best decision can be made about potential land use. Not growth of course, since growth is not where we're heading.

I felt a little guilty about walking with these folks—exclusion zones aren't *supposed* to be treated invasively, tromped through, overwhelmed with people. That is the problem, that overwhelming with people stuff. Even with the planet count under ten billion there's such a thing as wear-and-tear, especially when the coasts still haven't settled from the petroclimate maximum. Also, Exclusion Zones are often actively dangerous, the remediation of hundreds of years of colonial occupancy requiring heavy duty lasers rooting out construction to bedrock while using controlled phages and other specialty items to collect, process, and remove the petro-poisons.

The group had their break while Bugle and I rested on large glacier-swept rocks across a nearby creek. The group seemed to be working on tofu, bread, and nuts for their snacks—maybe the Reverend had a bent toward the green aesthetic. Me, I pulled two small meatpacks out—mine barbecued iguana and Bugle's a special prep of parboiled yak—and I nibbled while he chomped. The packs folded flat into the carry-away bag and would recycle. As for the yak and the iguana, they were likely both peacefully lying in the sun somewhere while duplicate meat packs were prepped from recent cultures. I'm no expert, but I am pretty sure the best meat comes from cultures no more than a year old, so if you've got a good donor, you want to keep it around as long as you can!

Bugle kept lazy eyes on the crew from our perch, while I reviewed my info...

No carbon issues with the young scouts, though three of the four youngsters also had check blips indicating they'd pushed a boundary or two along the way, been discovered outside of their zones, referred to Fred and his programs somehow for their own personal remediation.

So Fred had asked my boss to see a particular place, had they? Had been there before, twenty years back? That kind of itched at

the back of my mind, so I called up the old mineralogical maps.

Potential poacher interest included a modest amount of gold-panning in several eras in the past, “hobby panners” sifting gold flakes and tiny nuggets out, as well as an outcrop known for tourmaline, garnet, and mineral relatives. The no-mining rule applied, but you didn’t need something like Fred’s chains and Edna’s bounteous necklace frills to carry out gem-quality rough if you knew where to look and if your packs had hideaways, and don’t they all?

In the mix of maps were a couple of old parks—one related to the missing lake I’d overflowed—but all the parks and public spaces, including the huge old avian refuge, were subsumed into the greater good of the Exclusion Zone.

Curiosity by now was warring with suspicion—I was suspicious that I was missing something right in front of my face. Why here in particular?

When we finished eating, I motioned to Bugle and we crossed the stream. Local bird noise was subdued by the talk and play of the scouts, who were teasing each other about an upcoming ceremony while flinging pop-up disks to each other. I saw no signs they were disturbing long-term habitat and if their leaders had from time to time signed for them to be quieter I don’t know that if that was for my good or for the good of their own quiet conversations.

I was waved into the senior group’s discussion, where we went over the facts, with Bugle walking a perimeter while the rest of the group did what they were doing, which seemed again to be a ThreeDee mesh of all the cameras. If they were looking for something special it was hard to tell since they seemed quite willing to stop looking this way and to look that way at the sound of a bird or having a tree or rock formation pointed out.

Researcher Joe, he was from the Reverend’s hometown and had met the guy when he got in trouble as a kid—Fred had him helped out when he was maybe on the way to being a runner for someone and pointed him toward fixing the world. In fact, Joe mentioned that all of the people in the group had a connection with the Reverend, or with Edna, who had roomed with the Reverend for awhile before her last gig working with game birds in East Asia.

“I did some studies in this area when I was working on my Masters,” she told me. “Some studies and some experiments across a couple years, when there was still a refuge. Then the exclusion rules

tightened and I got work away, so haven't been back. I'm so pleased that refuge is effectively still here, even if unmanaged. And Fred's great with the maps. We're a good team—he intervenes for people, and I—I sort of intervene for birds.”

As if on cue a three-some of biggish iridescent birds—my first thought was mourning doves—flew overhead, a chitter of red squirrel complaints following their progress. Edna watched them and said loudly, “Listen to all the nuthatches!”

It took me a moment to pick up the birdsong...might have been a nuthatch among it and a chickadee, and distantly the laugh of a pileated woodpecker, and that other.

I listened hard. For not having visited the area in depth, this was becoming a favorite spot!

The other adults attended the Reverend's church, or had, and were all part of an on-going program of intervening in the cases of young people needing new starts. I guessed the scouts were here as part of that, as part of being saved.

Eventually, I looked the question straight on.

“Reverend Fred? Will you tell me what you're doing here today? What brings your group here, and now? Is there a hidden burial ground we'll need to take care of, a sacred rock or tree, maybe a...”

After a sigh and shrug of shoulders he looked into the trees as he spoke.

“What's here is what's here. The old community hasn't been properly documented. Unique traditions...unique melding with the locale. The old ecosystems weren't well documented, especially the avian refuge side, and parts were sacred to native Americans, birds and trees. That's why we need a new survey—the old surveys were all spin-offs of tax work and the like. We need something more in depth, and the satellites can only go so far.

“This is part of an intervention, you see. Giving young people goals in line with the old community and the new. That's spiritual by itself. I mean, what did you call Joe? City kid? To have city kids out here in the wilderness to see things they may never see again—unless they become converts to the work of rebuilding the world—it will bring them wonder for the rest of their lives.

“But tourism depletes—” I began.

“Look, ‘Travel is broadening’ they used to say a hundred fifty years ago. Did you know that before that most people rarely ever

got more than two or three hundred kilometers from home, in their lives? So to save the world, we're going back to that slow travel and low travel thing, except now we can share through all our networks. No need to get seasick or airsick to start to understand the ocean, the mountains, the monuments...all available over the networks. We're rich!

"Still, some people aren't good with sitting in one place. Hard to find a job elsewhere these days, and have the circums, like you do. Some of our grandfathers overdid it and now we've got to get back to people staying close to home. Let them get back to being filled with wonder anyway.

"My family was here for generations—that old lakebed has the remains of a family barn in it. Most of the folks traveling with me today, they've got heritage in this area just like I do, so call it good for their souls to visit, even if it is our last visit.

"The youngsters? Helping with a survey can inspire them to join the work bringing things back to balance—to redeeming the planet!—and it may convince them that remediation down to the root is required in some places, that the future we work for is real! And remediation means bringing back what we can of the wildlife and the majesty. Only some few can come out here now, but if we can bring the misfits who won't thrive in the city and give them a shot...yes. It must be done. That's my work, the same as saving this place for all of us is what you and Bugle do."

Maybe, then, they were legit. No rock-hounding, no metal theft, no illegal hunting...

I still hadn't decided if I should individually interview the scouts when I heard a repeat of the avian "tret, tret,tret" call and saw an iridescent flash as a trio of birds zoomed past the scouts. The birds set off others, somewhere, and suddenly there were several dozens of the things flying about and one of the scouts ran, pointing—

"Roost zone!"

Alas, the wilderness was not entirely wilderness, and their leader stumbled over a decrepit wall in their haste, the other scouts tripping over and all of them down at once to cries of surprise and a larger round of "Tret, tret, tret!" from the dense cloud of dozens of birds who zoomed off, eliciting complaints from ravens and squirrels and cries of wonder from the survey team.

We rushed to their aid; I saw and jumped a rock wall, Bugle at

my side, but the other side was a lower wall and that rock slid when I landed and an arm came up to guard my face.

Then I heard someone say what sounded like “Octopus! Migraine Octopus!”

* * *

Between us we had enough first-aid experience to staunch the scratches, and to calm the scouts. One of them, though, had a sprained ankle and another a broken arm; in short order I joined the somewhat somber group dismantling the camp and packing things into the vehicles, with the scouts whispering to each other.

“Yes, we have to go now. Breaks and sprains aren’t cured with field dressings!”

Reverend Fred spoke firmly to all of them, and I heard the one with the sprained ankle raise a voice as the Reverend said a little louder, “And please, yes, keep this among yourselves. What would people say if they think I took you to a street riot!”

There was some laughter then, but a bright voice spoke out, “But I saw the Octopus first, right? It was Edna’s experiment you talked about!”

“Save your breath! We need to fit you into the front here...”

That was Joe who took over as the Pastor came to reassure himself that I was fine, and to thank me for my time.

“Octopus?” I couldn’t help but ask.

He laughed.

“Only Latin, my friend, only Latin. But let me ask—you’ll not give us a bad report for this accident, will you? We’d like to schedule a return visit—and to get to our survey—as soon as possible. So go easy on us. Can you arrange that?”

I spread my hands. “The injuries were accidental and are under control. I may have to refer to them, but I’ll do it gently.”

He nodded, smiled, bowed, winked.

“Maybe there’s some stuff you can leave out. Here, I have something for you.”

He took a pencil out of a pocket, made a quick note on a slash of white in his hand, and dealt it over to me.

In my hand was a creamy paper card with no electronics built-in and without a scan code. It was not, as I’d feared briefly, a bribe.

Fred Novulo, Pastor, First Appalachian Church of Interventions

His blue pencil's printing was quite clear on the back of the card:

Ectopistes migratorius

So, not octopus, then, nor migraines.

Having no Latin, I had my phone look it up. There were articles, sketches, and gray tone photos.

Ectopistes migratorius.

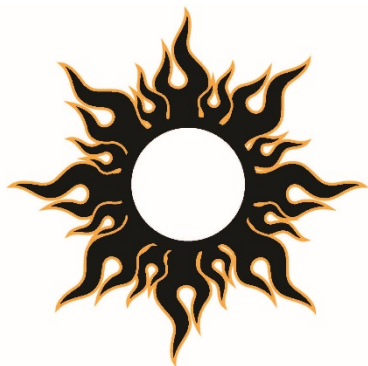
Passenger pigeon, they said. Extinct.

Then I went to the camera files from Fizzy One and Fizzy two.

Passenger pigeons. Dozens of them, maybe hundreds. Here.

I checked the definition of extinct and then zoomed in on one of Fizzy One's best close-ups.

"Ah, I see," I said to Bugle. "Maybe there *is* stuff I can leave out."



THE REPAIRER OF LOST AND BROKEN THINGS

by Kristine Smith

Leoni Carten surveyed the crowd that had gathered in front of the entry to the settlement's meeting hall. It proved smaller than those she had addressed on other worlds, the expressions on the scattered faces free of tension or any hint of concern. Not the usual reaction when Snelling-Lau's corporate licensing investigators came to call, but then, she had been warned. *New Earthers are different.* That had always been the gist of any discussion about those who had chosen to rehabilitate and repopulate the mother world. *They're not like us.* The descendants of those who had left Earth generations before to explore and terraform, inhabit and exploit, regarded her and those who had returned to her as they would an aging relative with embarrassing habits. *Keep at arm's length. Interact only when necessary.*

But when the time came, do what needed to be done.

Leoni took a deep breath, then touched her microphone controls and once again checked her translation settings. They spoke Outpost V English in this settlement, a patois shaded with words and meanings from Uxolo and other Sol 2 sector worlds. This job could prove difficult enough. Best to avoid adding botched conversation to the mix.

Behind her, one of her staffers cleared their throat. Artur,

judging from the rough depth of the sound, impatient and eager to get on with it so he could make his mark.

“We are looking for a man named Broderick Osai.” Leoni half-turned towards the image that filled the portable display set behind the makeshift podium. A young man, slim and slight of build, straight black hair bound in a short ponytail, his name etched on the breast pocket of his company coverall. “His family is trying to reach him. They have not heard from him for several months and have requested our help in finding him. Indications are that he entered this sector sometime in the last few weeks and arrived on Earth a few days later. If you believe you have seen him, or if you have heard of someone fitting his description, we would appreciate the chance to speak with you.”

Now she studied the faces more closely, alert for widening eyes, frowning, other signs that Osai may have been recognized. The usual mass scanning could have also pinpointed elevated heartbeat, sudden perspiring, and other evidence of stress that could indicate someone’s memory had been jogged, but she had decided against its use. Too many false positives, as the mere presence of an investigative team was usually enough to trigger such signs of alarm.

Leoni waited as the silence stretched. *So tired of this.* The words dropped into her head unbidden, yet so clear that she thought for one icy moment that she had spoken them aloud. She took another long, slow breath, and played another card from her well-worn deck. “As thanks for any assistance you may provide, a twenty-five percent license credit will be applied to all your quarterly accounts.” Offers of license credits drew applause on other worlds—the fees for utilities and communications for an average household could easily consume half the base allotment of the average worker. The hitch in that approach was that according to the records she had been provided, New Earthers didn’t subscribe to as many services as the other settled worlds. Even most outpost colonies used more, which compelled one to wonder how exactly they managed to function.

The corporations that provided those services certainly wondered. One in particular, Pang-Jepson, wondered to such a degree that it had hired Leoni’s employer to find out exactly what the hell was going on and whether one of their former employees, a sharp young process engineer named Broderick Osai, was involved.

The *former* part of his status was assumed since several months previously he had vanished, leaving behind a fully-furnished flat, a brand-new two-seater, and an unclaimed salary account that could have supported the average family unit for a lifetime.

Leoni looked out at the crowd, in search of any sign of fear, greed, or even mild curiosity.

Nothing.

New Earthers are different.

“We will be present in this sector for the remainder of this week.” She forced a smile. “If you recall anything, Broderick’s family would be most appreciative.” As she stepped back, her hand brushed an edge of one of the podium’s rough-hewn boards, and black char formed by the laser saw coated her fingertips.

She rubbed the ash between forefinger and thumb, held her hand to her nose, caught a hint of a harsh, eye-watering smell. *Burnt wood.* She had never smelled it before.

She finally sensed the silence, looked out towards the crowd to find they had dispersed, then back at her aides to find them frowning at her.

All except Artur, who regarded her with the cool half-smile of an office shark sensing blood.

* * *

“That’s not really procedure though, is it?”

Leoni spun her chair around to face her questioning staffer. Xenia, the one person on her team who seemed to see her as a human being instead of someone to be feared or, in Artur’s case, stepped over. “We need to take a different approach with this case. Given their backgrounds, folks here have heard of and likely dealt with corporate investigators of one type or another. Their guard will be up. We need to convince them our main drivers are family concerned for Osai’s welfare.” Though judging from the morning’s reception, that didn’t appear to have worked. *Reverse. Alter course. Try again.*

“You going out on your own...it may not be safe.” Xenia lowered her voice. “I mean, if they’re hiding him, they could threaten you. Or lie about where he is and trap you in an old building or a mine shaft or—”

“You watch too many suspense vids. Corporate support is the best protection you can have in the United Worlds short of an oligarch’s patronage. I’ll be fine.” Leoni handed Xenia a packet of

data wafers and other background materials. “Divvy these up and start digging. This settlement is the last place he was seen, but a week has passed since then. Has he moved to another site? Is he even still on Earth? We’ll go over what you’ve found when I get back.” She fielded yet another worried look. “I will have open two-way and I will confine myself to the settlement, which is right on the other side of the ridge or hill or whatever it is we landed on.”

“Leo?” Another of her assistants stuck her head through the passage between the staff bullpen and her private office. “It’s him.”

Leoni’s heart stuttered. That seemingly innocent pronoun meant only one person. “How much lag time do I have?”

“Two-three second delay only.” The young woman winced. “I think he must be on Luna.”

So the CEO of Pang-Jepson had followed them to Earth? *Lovely.* “Give me a minute, Sharique. Then put him through.” Leoni dug into her desk drawer for the bottle of analgesic tabs, popped one, then another, and washed them down with the cold remnants of her breakfast coffee. She closed her eyes, took three ribcage-expanding breaths, then opened the com connection. “Good morning, sir.”

Evert Harrell, gray-haired and business-suited in somber black, regarded her with a deceptive half-smile. Benign, in the way an apex predator gazes at potential prey when they’re still too full from the last victim to bother. “I expected a report awaiting me when my assistant checked the morning mail, Ms. Carten.”

“We’ve only just arrived, sir.”

“We provided you enough information. You should have preliminary conclusions.” The time lag between Earth and Luna combined with the vagaries of interplanetary communication rendered the man’s movements slightly jerky, as though he were a robot with faulty connections.

Leoni pressed her back against her chair pad and shoved her hands under her thighs to squelch her sudden urge to twitch in reply. “Speculation at best, sir. Better to have facts.”

“Are you doubting the quality of our assessments?”

“No, sir.” *They’re biased as hell, just as I expected.*

“I want a detailed update in my hands by sunset your time. Your superiors spoke most highly of your skills, Ms. Carten.” This time, Harrell’s smile showed teeth and conveyed all the warmth of a skull. “I’m counting on you.”

Leoni nodded thanks. "Sir."

"They assured me you are the best."

First, the carrot—

"Don't let me down."

—then the tap of the stick, a reminder of who held the power. And who didn't.

Leoni nodded once again, then kept her half-smile fixed in place until Harrell's face vanished and the display blanked.

"That sounded ominous."

Leoni turned to find Artur standing in the doorway.

Eavesdropping again. Not a crime in and of itself—she had done her own share of accidental overhearing over the years. They were investigators after all. Nosiness was a prerequisite for the job. *It's just simple loathing.*

"The credit offer failed to attract any takers." Artur sniffed, then smoothed a hand over the crossover lapel of his jacket.

"It's still early." Leoni kept her eyes focused on a point to the left of Artur's head because she knew it bugged him. "Earth is a special case. It's not a settled world. But it's not an outpost, either." She nodded towards a packet of data modules, reports, and analyses that spanned two centuries. "It's in recovery mode. Scientists and engineers, archeologists and anthropologists, are studying the ruins of cities, determining the needs of the land, the water. The knowledge they gain rehabilitating this world will be of great use in the development of future outposts and the wilderness areas of the settled worlds. Until we know more about Osai's whereabouts, we need to keep these folks on our side." She paused. "It's the homeworld. The cradle we all came from."

"Then we grew up." Artur pushed away from the wall and shook his head. "They were the past. They should've stayed there."

* * *

When Leoni told a co-worker that she had requested the assignment to go to New Earth to track down a missing engineer, he had cleared his throat and asked a series of delicate questions that boiled down to "Is all well at home?" She had replied that everything was fine, though of course it wasn't and hadn't been for some months. It wasn't Tisa's fault. She loved living in the sector capital. Her architectural firm thrived as her connections grew. She had been added to the list of those eligible for government contracts. She worked long hours, yes, and sometimes only managed to return to their flat on weekends.

After one tension-filled late supper, Leoni had tried to lighten the mood by joking that Tisa must be having an affair. Tisa just stared, her expression so stricken that Leoni stammered an apology, hurriedly cleaned up, then spent the balance of the evening hiding in her office. She apologized later, but that was the problem with words once spoken. The never-ending echo.

* * *

The first thing Leoni did when she left the shuttle was trigger the alert on her two-way line so she would know if anyone listened in on the other end. She had enough to worry about without the added concern of spying staffers.

She opted to cover the half-kee distance to the settlement on foot rather than take one of the shuttle scooters. For one thing, she feared the rattle and bump of the wheeled conveyance on the rocky path would reignite her headache. For another, she would appear more vulnerable on foot. Less official. Less of a threat.

One hopes. She entered the old part of the settlement, a warren of boxy modules, to find the walkways deserted. Made sense. Everyone who came to Earth had a reason to be there and a job to do and were either engaged in doing it or sleeping-slash-living their lives until their next shift.

Leoni wondered what it must be like to share a purpose with everyone else you knew, with people on the other side of the planet who you didn't know and might never meet. *To be a part of something greater than yourself.* Corporations and government officials tossed that phrase around so casually. Here, it was really true.

She walked up one narrow passage between buildings and down another. Placed a hand on an outer wall and paused. She expected the hard roughness of prefabricated composite, but instead the surface felt soft, like nubby velvet. She bent close and caught a whiff of something sweet, a fresh scent that reminded her of flowers.

She touched the wall opposite. It also felt soft and a little fuzzy. She glanced around to make sure no one watched her before sniffing it. Spicy, this scent. Like cracked pepper.

It can't be mold. The air felt too dry and warm, the sun shining bright in a cloudless sky. Besides, the walls were different colors, the sweet one dark green and the spicy one wine red. Just paint, she had assumed. Splashes of color to counter the monotonous gray.

As Leoni pondered, she heard a door opening, then shutting with a bang. Faint strains of music soon followed. A slow piece. Classical. Heavy on the string instruments. She gave the red wall one last pat, then followed the sound, taking note along the way of the other colors that lined the passageway. Blue-green. Orange. Purple.

She traced the music to a more mundane building of uncoated gray composite, a hand-printed sign tucked into a slot beside the door. *Repairer of Lost and Broken Things*. She knocked, heard the music volume decrease, and waited.

"It's open." A quiet voice, touched by a familiar accent.

Leoni pushed open the door and stepped inside the most overcrowded room she had ever seen. Floor to ceiling storage units crammed so closely she had to turn sideways in order to maneuver between them, each shelf double-stacked with cartons, poly bags, and loose pieces of pipe, instrument boards, padded pouches of biocircuitry.

"You think this is bad, you should see the back. Some of it is reusable, but most of it is for the recycler." A small, round woman with gray-streaked brown hair popped up from behind a counter at the far end of the room. "I'm Maritza."

"Leoni Carten." Leoni slapped dust streaks from her tunic and trousers, sneezed, accepted offered tissues with a grateful nod. "You're Valencian." She shut off her translator and slipped into the Spanish dialect like a comfortable robe. "Repairer of Lost and Broken Things. How can you repair something if it's lost?"

"Ah." Maritza smiled. "That was a language garble by the man who started this place. He referred to missing parts, attachments that get lost over time."

Leoni picked a bag of chips from the shelf and examined it. "Out of license?"

"Legally retired and off-patent and usable under the Unique Requirements Act." Maritza's smile tightened for a moment, then slowly softened. "If you need to see our documentation—"

"That won't be necessary. We're not here to audit." Leoni returned the bag to the shelf, and hoped she hadn't made a blunder. "I'm just looking for information. There's someone here, one of your newer arrivals, I would guess. We need to get in touch with him."

"Yes. I heard your announcement." Maritza shrugged. "I'm afraid I can't help you."

“Are you certain?” Leoni received another shrug in response, paused for a beat, then tried again. “You have so much to organize here. We could provide you some scanning equipment if you wish. It might make logging and cross-referencing a little easier.”

“What I need is a helper.” Maritza sighed. “But everyone is so busy.” She made as if to say more, then fussed with one of the cartons before turning back to Leoni. “The man you’re looking for. What will you do if you find him?”

“Take him back to his family.” Leoni tried to sound matter-of-fact even though she knew that whatever Pang-Jepson had planned for their erstwhile employee, a family reunion was not part of it.

Maritza’s eyes narrowed. “What if he doesn’t want to go?”

“Why wouldn’t he want to return to people who love and care about him?” Leoni waited for an answer, but Maritza straightened another shelf instead. Time to change the subject. “I have a question about—a few of the buildings, the ones that are—I guess you’d call them painted—they have a scent. Why is that?”

“Do they?” Maritza’s brow arched. “I never noticed.” She turned away and disappeared among the shelves, leaving Leoni to find her own way out.

* * *

Leoni spent some time wandering, looking in windows, chatting with anyone who seemed receptive. Everyone responded politely but guardedly, and her occasional question about scented buildings was met with arched brows and head shakes.

Eventually she left the confines of the main settlement and walked out into an adjoining field. She brushed her hands over the tops of waist-high grasses and flowers and marveled at the silence broken only by birdsong and the rustle of the breeze through leafy branches and the sight of a sky free of transports and shuttles.

Then she rounded a large stand of towering trees and stopped.

It looked like a ruin at first, the fractured remnants of a multistory building jutting out of a hillside. Then the perspective shifted, and Leoni saw that the building itself formed the hillside, five terraced floors partially obscured by shrubbery and small trees, the grounds surrounding it covered by shorter grasses and flowers cut through with walking paths and wider passages for vehicles.

She drew closer and saw people on a few of the upper floors talking in groups and making entries in handhelds. She crouched and scuttled into the shadows to avoid being seen, pressed against

the wall, and caught a whiff of a faint floral scent. She pulled her handheld from her belt holster, activated the flashlight, then swore under her breath as she hunted for the magnification application. Once she found it, she directed her device at the wall and peered through the viewer.

The tiniest flowers she had ever seen lay scattered across a layer of green leaves so small they felt like textured cloth. As she moved the light back and forth, the flowers opened wider while the leaves shifted in unison like a wave propagating across the wall surface.

Leoni shook her head. *You idiot.* Married to an architect, the not-always-willing audience for Tisa's outraged ramblings about all the technological possibilities her professional society refused to even consider. How in hell did she miss it? "Bioengineered plant life, probably networked with conduits." The walls were fuel cells. Or an array of fuel cells, really. Leoni looked up at the banked terraces. "They're running the building via photosynthesis. It will function as its own energy source."

The whole building was a battery. Every system—ventilation, temperature control, water filtration, appliances, and devices—received its power from the plant life that grew on-site. *The perfect fuel cell.* Self-sustaining. And as the plants and trees grew, maybe even becoming more efficient over time. No wonder the CEO of a major battery manufacturer tracked this investigation personally.

Leoni slipped away through the trees, hiding until she came to the path that led back to the settlement. As vehicles of all sizes from one-person scooters to large trailers whispered past, she spotted the panels that formed the roofs, most of them the same shades as the settlement walls. *Different colors mean different strengths.* She laughed at the sheer elegance of it all until she looked up at the sun. Past noon according to its position. Harrell would be expecting a report within hours, and her staff probably wondered where in the hell she was.

I need to get back to the shuttle. Just turn all the information over to her employer and go home where she belonged.

Tell Tisa of the wonderful things she saw. And how she helped break them.

Her step slowed. She still had a little time. But not much. And it was running out fast.

In the end, there was a bar. No matter how distant the outpost or sparse the population, there was always a bar.

On the smaller side, this one, a square, windowless space with a handful of tables and a counter spanning the back wall. Behind said counter, the inevitable mirror, so the bartender could keep an eye on things without seeming to. A single shelf held a half dozen unlabeled bottles, most empty or nearly so.

The bartender barely glanced at Leoni as she approached. Older, a scatter of gray amid black curls. He wore a tatty dark blue coverall, a towel tied around his waist like an apron.

Then he met her gaze. His eyes were brown, dark as coffee but with a lively gleam. *Young eyes in an old face*, Tisa would've muttered before sitting down to flirt. *Bet he's trouble*.

"The investigator." He smiled. "Wondered if you'd show up."

Leoni made a display of looking around. "Everyone winds up here, do they?"

"It's a hot spot, can't you tell?" The smile wavered as he set both hands on the bar and waited.

Leoni dragged over a stool and sat directly in front of him, checking the space above each breast pocket of the coverall for a name and not finding one. "I'm Leoni Carten."

"Hello, Leoni Carten. I'm Alex."

"Hi Alex. Do you have a last name?"

"No."

"Is Alex your real first name?"

The smile broadened. "No."

Leoni laughed, then pointed to the bottles. "What do you have?"

"Ah." Alex stepped back, regarded the shelf of bottles, and shook his head. "We are running a little low on stock. The next batches won't be ready for a couple of weeks. It's been BYOB here for a while." He took down one of the bottles, which was three-quarters full of clear, colorless liquid. "All that's left is the applejack. I can cut it with juice if you want."

"It's a little early for me. I wouldn't mind some juice, though." Leoni watched as he grabbed a bottle from the cooler and filled a repurposed lab beaker. "Are you always this busy?"

"It's between shifts." Alex set the beaker on the bar. "Tonight it'll be swinging."

Leoni choked back a laugh and took a swallow of the juice. It

tasted like summer. “Homemade?”

“Everything. Including the liquor.” Alex shrugged. “It’s the vendor crunch. We don’t buy their licenses, they don’t sell us their wines and spirits.”

“So I report this as a tax violation.”

“You could. But you won’t.”

“Why not?”

“Because I don’t think that’s how you operate.” Alex walked to the far end of the bar and rearranged glassware on the shelves. “Have a nice walk?”

Leoni had just raised her glass to drink, but instead she set it down slowly. Of course they had all seen her—it wasn’t like she tried to hide. “I did.” She thought back to the feel of the breeze and the sun on her face. “It’s beautiful here.”

“Have you stopped by the old shop at the west edge?” Alex glanced at her in the mirror, then returned to his housekeeping.

Leoni’s heart skipped. “That’s one place I haven’t stopped today.”

“You should. Nice view of the ravine. Sometimes we see deer. Not many, maybe three, four at a time. Healthy, though. We’ve ways to check. A prion disease knocked most of them out couple hundred years ago, but they’ve come back.” He paused, then turned and met her eye. “You should definitely visit.”

The hint couldn’t have been more obvious. Leoni tossed back the rest of her juice, set a credit chit next to the empty beaker, and left.

* * *

The old shop looked much the same as the other settlement buildings, a simple rectangle of flat-surfaced prefab composite walls cut by square windows. Leoni expected the door to be secured with some type of biometric lock, but when she turned the lever, it opened with the high-pitched creak of metal hinges in dire need of lubrication. She stepped inside to find half the space filled with rows of floor to ceiling shelves, but unlike Maritza’s shop, these were mostly empty. She guessed the shelving itself was what needed storage.

She walked across the space to the window, pushed open the grime-covered pane. Alex-not-his-name hadn’t lied. It was a lovely view. The land sloped down to a ravine filled with wildflowers, a sea of purple, yellow, and white. On the opposite bank stood a line

of wild apple trees, their branches bowed with rich red fruit.

Leoni leaned out and inhaled, felt the sun warm her face. More mellow here, the scents in the air, and she wondered if they came from all the greenery or the apples or maybe because the land that fed them had simply been left alone.

As she pondered, she heard a rustling sound overhead. A little bundle of black and white, buff and gray, tumbled onto the sill, then bounced into her cupped hands. It staggered to its feet as though stunned—she felt its needle-like claws press into her palms as she watched it watch her.

Leoni stared into the bird's glittering eyes. Slowly, gently, she touched its chest with her thumb, felt its racing heartbeat. Then, in a flutter of wings, it flew off, vanishing into the nearby tangles of shrubbery.

“Black-capped chickadees.”

Leoni turned to find Broderick Osai standing in the doorway. At some point, the neat figure from his employee ID had gone walkabout. He had replaced the Pang-Jepson coverall with a drab gray shirt and trousers. His hair had grown past his shoulders, and he had tied a red bandanna around his forehead to keep it off his face.

He entered the room, gaze fixed on the view through the window. “There were millions once. They managed to adapt after the Great Burn, but then came wave after wave of avian flu that wiped out most of the North American songbirds. They were thought extinct as recently as ten years ago. Then a survey drone spotted one on the edge of the woods that surround the Rockford ruins. A research group from the Lunar University annex found more last year, at least thirty.” He moved in beside her, placed a hand on the sill. “I love their buzzy calls.” He kept his eyes focused on the ravine. “I heard you were looking for me.”

Leoni nodded. “Your neighbors are very protective. No one would even admit to ever having seen you.”

“And yet you're still here. I'd have thought you'd given up and headed out to one of the other settlements by now.” Broderick sighed. “What do you want?” He held up his hand. “Let me rephrase. What does Pang-Jepson want?”

Leoni knew what she had to say, and realized at that moment how much she hated her job. “You signed a non-compete agreement —”

“Which stated I would not work for another company. This isn’t a company. This is a world.”

Leoni kept her gaze fixed on the flowers. “Pang-Jepson won’t see it that way. They will sue you and they will win.” She felt Broderick’s stare rasp the side of her face and forced herself to look him in the eyes.

Broderick leaned back, hanging on the sill to remain upright. “I wasn’t one of P-J’s usual hires. I went to Uni Combined on a scholarship. It even made the local newsnets. ‘Gamma Boy makes good.’ The first in my family to leave the outpost. Everyone was so proud.” A smile made of memory died. “When I arrived at my dorm suite, I found my roommates had put signs all over the lavatory. Sink. Toilet. Shower. I laughed with them, then got on with it. I did that a lot.”

Leoni started to speak, then hung her head and just listened.

“I put up with it because I had a goal.” Broderick twitched a shoulder. “Nothing specific. I just wanted to make things better. I had read all the Pang-Jepson propaganda and thought they might be the kind of place where I could make a mark.”

“You did.” Leoni thought back to the man’s evaluations, which had been glowing until they weren’t. “You were awarded the President’s Cup in your third year. It had never been given to someone so young.”

Broderick snorted. “That award. What did I win it for?”

“You’re asking me?”

“What were you told?”

Leoni hesitated. “I’m not a process engineer—”

“Oh, come on, investigator.” Broderick’s voice emerged a sing-song. “Pang-Jepson’s domestic power arrays? The ones that are installed in just about every domicile in the United Worlds? They had a rep for losing efficiency, many to the point that they needed to be replaced well before their advertised lifespan. Customers complained. P-J blamed misuse, lousy install, the usual end-user errors. But they tasked me with determining the real cause. Me, a new engineer with no experience in that particular array.” He leaned towards her. “Why do you think they did that?”

Because they expected you to fail. Because they didn’t want the answer, but had to look like they did. Leoni imagined Harrell’s face, his smug expression as he formed his plan to make a fool of an outpost boy. “They must have thought a lot of you.”

Broderick's eyes widened. Then he laughed silently for a few moments, shoulders bouncing up and down as though he rode a carnival jostle cart. "The array senses power needs and can divert additional resources as needed. When it does that, it also restricts flow to nonessential systems. Imagine gates closing to funnel people towards a particular tram." He waited for Leoni to nod. "Except the gates didn't always close, not all the way. There was leakage, and as the leakage continued, the system came to accept it as part of the process. It learned to leak. Arrays became less and less efficient over time because that was what they were training themselves to do. If we repaired that glitch, they would easily last twice as long before slipping below optimum. But then P-J wouldn't be able to sell as many, would they?"

Leoni said nothing. She had heard enough about Pang-Jepson business practices over the years to believe every word Broderick said. Why didn't she feel shock or anger? Or even a touch annoyed? *So blasé we've become, haven't we, woman?*

Broderick shrugged at her silence, then continued. "I documented it in a report. Next thing I know, I'm being called into executive offices and congratulated." He cocked his head one way—"Then I was asked to sign a nondisclosure agreement."—then the other. "Then they transferred me to another division. Hefty raise. Corner office. Fancy title. Director of Exploratory Research, like there's any other kind. But no job description. No staff. Not even a share of an assistant."

Leoni struggled to find something to say. "They expected you to develop the new position."

"It was a payoff to keep my mouth shut." Broderick smiled, the expression laced with a cynical curl of lip that aged him like no wrinkle or gray hair ever would. "And to make sure I didn't find any more glitches."

They stood in silence for a time. Then Broderick stepped back up to the window and rested his elbows on the sill, seemingly intent on the scenery. "Why are you here, Leoni?"

"Really?" Leoni concentrated on her voice, on keeping it level, cool of tone. "I'm here to bring you back to work."

"But why are *you* here?" Broderick eyed her sidelong. "I did study procedures before I left, how P-J might react to my leaving. What steps they might take to compel me to return." He turned towards her, one elbow still on the sill, like they stood at Alex's bar.

“Investigators like you travel in packs, and those packs have a set hierarchy.” He pointed to her. “You’re a chief investigator—you manage the resources, approve the expense vouchers. You send out underlings to do the legwork, and they report findings to you. You don’t go out in the field, especially not on your own with no set plan.”

“How do you know—”

“A storage facility? A building site? A bar? Not the sorts of places I was known to frequent when I lived at the corporate compound.”

“So you had people informing you of my whereabouts.”

“I have friends. Perhaps you’ve heard the term?” Broderick flinched. His face darkened. “I’m sorry. That was uncalled for.” He picked at the chipped edge of the sill, then pushed away and walked about the space, hands shoved in pockets. “After my payoff, as I tried to adjust to what had happened and why, I took walks around the P-J campus. I’d visit labs. Offices. Talked to people. I made some of them damned uncomfortable. I guess they thought I was one of you lot.” He glanced in her direction, then continued pacing. “I’m still not sure what I was looking for. What I thought I’d find. Maybe another place to land, or some sign that I wasn’t wasting my life.” He pulled the bandanna from his head, undid the knot, then retied it, again and again.

“It’s not perfect here. I mean, how can it be—we’re people. But we beat this world into dust and smoke the first time, and now we’re working to bring it back. To do it right.” Broderick’s hands stilled. “But we’re going to do it our way. We’re not going to let the Pang-Jepsons and Brainards and all the other conglomerates turn us into another pit to shovel their crap into.”

Leoni waited until Broderick unwound a little, shuffled his feet, stuck the bandanna in his pocket. “Does your family know you’re here?” She watched his expression harden, as though he saw her for the first time and didn’t like that view. *He has no reason to trust me.* And those he cared about were his pressure points.

Then Broderick’s glare lightened. “That was the main reason I hesitated. Because they’d been so proud, and here I was throwing it all away.” He took a step towards her. “But no one who really loves you would want you to live a lie because you think that’s what they want. You tell them, and yes, maybe they cut you loose.” He paused. “Or maybe they decide that your new truth is theirs as

well.”

Leoni stared. Then the realization hit. “They’re here with you? Your family? How did you get them here without—”

“Without you finding out?” Broderick arched a brow. “We have a pretty broad knowledge base here about all manner of things. We’re not starry-eyed children.” Another step closer. “And we’re not thieves, or forgers, or pirates, or whatever else P-J told you we are. Everything we do here, we follow the rules as they exist. Now if the conglomerates want to go changing those rules to regain what they never lost in the first place? If they want to try to stop us from, well, call it competing?” He smiled. “We have some pretty impressive people here building foundations and counting birds. Like I said, not children.” He took the bandanna from his pocket and retied it around his forehead. “We even have lawyers. They just started showing up, aggravated and fed-up and looking for something more. Worthless in the field and the lab, but boy, do they love paperwork. Show them a contract or a patent and stand back.”

Leoni responded eventually, her voice touched with wonder. “You think you can beat them?”

“I know we can. Tell your bosses that, and whoever else you can get to listen.” Broderick turned and headed for the door, paused when he reached it, and looked back at her. “We want to give back to this world what we took from it. If we can do that, maybe we can also get back all we’ve lost.” He remained still for a time, mouth moving in soundless speech. Then he fixed her with a look that held, if not friendliness, maybe something close enough. “I wasn’t going to talk to you. But they told me how you were just walking around and something Alex said once—” He grinned. “I mean, bartenders, right? Students of human nature. But he’s had a life and he’s dealt with people like you before. He says there are the ones who come in like your new best friend all bright-eyed and asking so many questions, and you don’t tell them a thing because you know it’s an act. But then there are the quiet ones. Maybe they talk but it’s all just chatter and they have this expression Alex calls ‘the look.’ Like they’re lost. No idea what to do next. Most of them leave. Maybe they feel they have no choice. But some of them...” He watched her for a few moments. Then he nodded farewell and left.

Leoni remained at the window and listened to the birds.

Smelled the air. She walked to the door, struggling to think of what she could say to Harrell and how in hell she could say it, and coming up empty again and again. She stepped outside and looked up at the sun, now on its downward trek.

...maybe they decide that your new truth is theirs as well.

Leoni stood frozen, stuck between a task she despised and the fear of what might happen if she walked away. Then she hurried back to the settlement and up and down the passageways until she found a shaded corner. She sat on the ground, pulled out her handheld, and keyed in a code she never should've possessed, a private stream to Tisa connected to one of the high security rapid tracks that were picked up by ship traffic through the gateways and released as they emerged, clear, clean, and unaffected by the weird spacetime conditions inside the engineered wormholes.

"Tisa? Baby, it's me." She looked up at the sun again and calculated the com time lag. Minutes, but maybe hours depending on the traffic. Still, what choice did she have? She had made her decision when she asked for this job. Now it was time to contain the damage as much as possible. "I hope you read the note I left. Where I am." Her mind raced. Words tumbled. "They're doing things here you can't imagine. No, you can imagine them because they're the sorts of things we used to talk about during exam week at Uni after too much coffee and those booster tabs that always made us babble. They have amazing things here. Walls that are batteries and a flat block that runs on plants." Images flashed through her mind like some weird memory test. "The walls smell like flowers. They're all different colors. You have to see them."

She examined her palms, found a few tiny scratches. "A bird fell from the sky into my hands. I felt its heartbeat. For the first time in a long time, I felt...something good. And I don't want you to think it's you because I love you so much but..." Tears fell. "But pieces of me were missing and I feel like I found them here."

She paused. "I don't want you to feel like you have to—to give up what you worked so hard for because it's marvelous and you're marvelous. But I need to stay here for a while, and I don't know what that will mean. Because of the things I know, I'm a threat—" She fell silent as one simple truth choked the newly found life out of her. That she knew where so much trash had been buried over the years, and that knowledge made her dangerous. That her employers played a rough game, and if they couldn't roll over her,

Tisa would be the next best target.

They'd destroy her. Her only chance would be to come to Earth. *And sacrifice everything she's built.*

Leoni canceled the recording and deleted the message. Then she slumped against the wall and tried to work out how she could confine the fallout to her life alone. She constructed, then discarded, one rickety scenario after another when her handheld mail alarm dinged. A special sound, coded for one person.

Heart thumping, Leoni activated the device. An oh-so-familiar face filled the display, elfin blonde delicacy that obscured the steel beneath.

"Do you remember when I set our message system to save all the drafts and deletions after I lost that carefully worded reply to the Society of Architects?" Tisa arched her brow. "I didn't think so." She sat, arms folded, her crammed office bookcases filling the backdrop. "You always wait until the barriers have been breached and people are scrambling for the life pods. Why?" A headshake. A sigh.

Then they talked like they used to, as they hadn't for years, words interspersed with pondering and planning and careful consideration and time lags large and small until in the end they decided, together, what they would do and how they would do it.

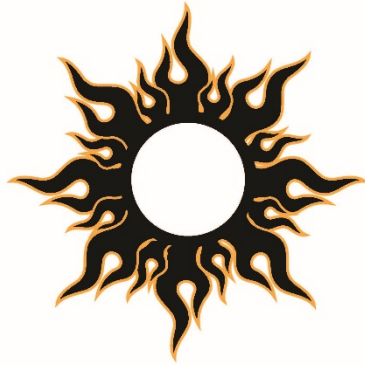
When Leoni cut the com after what seemed like minutes but had in fact been well over two hours, she stared at the display, trembling as though with chill, her mind a blank. When she came back to herself, she wondered if this was how Broderick had felt when he decided to flee to this place. When he realized he could no longer live a lie now that he had found something real.

I'll ask him when I see him. She knew they would meet again.

She stood, and with a much lighter step returned to the shuttle and gathered her staff. "He isn't here. It appears he stowed away on a cargo shuttle bound for Luna—from there, he could find passage to half a dozen sectors. Alert Mr. Harrell's ship. Tell him I suspect he's headed to Outpost Delta. I'll remain behind in case he attempts to return." Sending the CEO of a major corporation on a wild goose chase to one of the most distant settlements in the Union—no turning back now. She eyed Artur, who didn't bother to conceal his glee. *And knowing you, you'll take all the credit.* That would be her parting gift to him—leaving him to explain to so many highly-placed individuals how he could've been so wrong and

why he had left her behind and had that always been the plan and how much did he know and when did he know it?

The thought of Artur scrambling for purchase on the slippery slopes of terminal careerism made Leoni smile, but not for long. Once they figured out what she had done, they would come looking for her. *And I'll tell them what Broderick told me.* That if they played fair, Earth would as well. *And if they didn't?* She knew they would have a fight on their hands, that they would lose some battles. But they would win some as well. And as they did, they would repair this world, and maybe a few others along the way. Just as, in its way, this world would repair them.



THE PALMDALE COMMUNITY NEWSLETTER

by Anthony Lowe

Albert Jenkins lived on the corner of Sweetbrier and Veinte Street and never let anyone forget it. On his front lawn sat an old picnic table, lawn chair, and poster board sign advertising the *Palmdale Community Newsletter*: “A better world, free for all.”

Every day, before printing, he woke up with the sun and put on a pot of coffee, though this took some finagling since the machine was old enough to have known another century and he accidentally broke the glass pot during his lateral move from Lancaster a decade ago. If not set inside the machine at the right angle, the coffee spilled out over the counter, so he created a little canal made up of plastic bottles he found during his morning walks that harmlessly drained into the sink.

“Why don’t you just get another coffee machine?” I asked.

Albert laughed heartily, which caused him to rock a little in his recliner. When he realized I wasn’t joking, he just stared at me with concern. “It still works.”

“You’ve constructed a whole system to account for your coffee machine failing to make coffee.”

“Most of it gets in the pot anyway. I just don’t like mopping it up anymore. The coffee canal helps with that.”

“Right.”

After having his coffee, he treated himself to a piece of buttered toast with a sprinkling of cinnamon on top.

"I tried to convince the bakery a few blocks over to just make some cinnamon bread and it would save me a whole extra step. I mean, I buy from them every week and I can't think of a soul bound for Heaven that doesn't like cinnamon bread."

"Did they make it for you?"

"Nah," Albert said, rocking much more slowly to match his sinking mood. "Wouldn't even consider it. Common courtesy is much more uncommon these days. Damn near elusive, lemme tell you."

While eating his toast, he read through his copy of the *Antelope Valley Enterprise*, the last printed newspaper in the area that still offers home delivery.

Albert harrumphed. "Of all the papers to survive the gauntlet that the twenty-first century created for printed media, of course it was the goddamn *Enterprise*." He snorted, sipped his coffee. "You couldn't trust anything they printed back in the Nineties... Oh, sure, you'd have to have *another* paper around to verify anything they printed. Movie times, football scores, the weather, *election results*. They called the presidency for Bob Dole two weeks after the polls closed. If the *Enterprise* said we were due sunny skies for the day, you got your umbrella out of the closet."

"Right, so about your newsletter..."

"The *Enterprise* barely succeeds at being good bedding in a hamster cage— What was that you said?"

"Your newsletter." I had already been at his house for an hour, pen poised over my notepad long enough I had absently drilled through the first page with little impatient ink circles. "Anytime you're ready."

"The newsletter! Right!" Albert pulled his cane from the wall and used it to assist his rocking in the recliner. "You've read it?"

"I have, yeah. There are a few I haven't been able to track down."

"I've got all kinds of issues."

"Right..."

"Got 'em all in the shed if you're missing some. Usually print about fifty, plus ten extra and ten I send to the community college."

"That's where I found them. A friend of mine's in charge of digitizing your work over there. He's the one who talked to you on my behalf."

"Right, right, so I heard. *Digitizing*. Ha! When I was a younger

man, I never woulda thought computers would have a talent like that. The future can still amaze.”

I asked, “How long have you been running the newsletter?”

“Oh.” Albert scratched his head. “Bout near five years, I suppose.”

“When did you decide to tackle this project?”

“Project?”

I nodded. “Yeah, this running narrative you’ve been building out these five years.”

“Narrative?”

From beside my seat, I produced my backpack that I had filled with copies of Albert Jenkins’ *Palmdale Community Newsletter*. I had read through the bulk of them, nearly 1800 issues for the nearly five years that he had been writing the PCN.

Each issue was handmade by Jenkins himself: his admittedly neat handwriting running the three columns, capped off with the newsletter’s title, the edition and issue, along with the PCN’s motto YOU ARE HERE printed boldly above the date.

“I’m curious why you never typed these out,” I said. “Your penmanship is excellent, but still—”

“Was never able to work with computers. Those tech companies make you feel like computers simplify things, but there’s so damn much between you and your task when you sit down at one of those monsters. And what’s more simple than a pen and paper, huh? Anyway, computers are so dang wasteful. Pen and paper! That’s all you need. You go back far enough, lots of newspapers were handwritten and distributed just so. Journalist Carlos DeSeda used to write out copies of the *Turlock Item* by hand in the late Eighteen-Hundreds, *without* a copy machine handy like we have. He even included timetables for the passenger trains. And DeSeda was probably a thousand times more accurate than the *Enterprise*!”

“Understood. So what was your inspiration for this story?”

“What the hell’re you talking about? Story?”

“The story...the—” I pulled a few issues from my bag. “—the fictional future society you’ve been writing about in your newsletter.”

“Future society?” Again, Albert laughed as though I had just told a joke. “Oh, shit, you’re serious.”

“About what?”

Albert jabbed his cane in the direction of my bag. "Those are just what I see on my walks. *Future society*, ha! It's Twenty-Twenty-Three over there, too."

"I'm sorry..." This was when I started to worry. "What you see on your walks? I don't think I understand."

The Palmdale Community Newsletter

Vol. 2, No. 127 - May 8, 2019

You'll all be happy to know that Jamal has resolved the issue that's been absolutely plaguing the efficiency grid of solar farms K-2 and K-3 just east of the city. He explained the solution to me in detail but—rest assured, dear reader—I still have no idea what he's talking about half the time. Even though I remembered to have him write it down: with the writings right in front of me, it's all gibberish. Maybe I should have him draw some pictures next time!

I ended up further away from the city during this jaunt, so I got a concentrated dose of desert. It's not nearly as hot as it would be if you just wandered out there today, but I wasn't made for the desert either way.

The debate is still ongoing at the state level as far as whether or not they want to start "greening" the desert, which still astonishes me. They've done some trials deeper in the Mojave with amazing results, but the dialogue endures. The locality governor is fairly neutral, leaving it to the city mayors to find consensus (I'm still trying to figure out how this new government is structured) before he submits any kind of proposal to be voted on. The natural geological conditions created the desert, so while greening would put a further dent in carbon emissions, there's some who are arguing to preserve the desert as it is.

I say green the hell out of it, but that's just me. There's more than enough sand to go around.

"Five years ago—" He held up five fingers. "—I had just moved to Palmdale, not feeling too great if I can be completely honest."

"Please be as honest as you'd like." I started taking notes, abandoning the little inky hole I'd bored into my notepad.

"Lost my wife the year before. Forty years together. Hm. Couldn't bear to be around that house without her in it, so I decided to move one city over. Our plan was to move here when we got old enough to need a smaller house, but, ah...well, y'know what they

say about plans.”

“Certainly, certainly.”

“So I moved down here from Lancaster, which more or less amounted to swapping twelve o’ clock for noon, but it was enough of a change to, I guess, give my mind a little room to wrap itself around things. Got settled, started going for walks to clear my head...and that’s when it started happening. Started getting this *strange* feeling around Seventeenth Street. I dunno why I walked all the way out there in the first place—it’s just *sand*—but I started smelling strange things, started feeling a cool breeze cutting through the heat... I thought I was fucking dying, to tell you the truth. Holy shit, that feeling scared the *hell* out of me.”

Vol. 1, No. 15 - January 15th, 2018

The cars are communal. The cars are communal!

I mean, have you ever just considered how much you don’t use your car? How much this vehicle that you’ve purchased at great cost just sits around doing nothing? We’ve sorta become accustomed to buying things that outlive their use or only intermittently fulfill their use. Do you know how many resources are dumped into factories to make hundreds of thousands of LIVE, LAUGH, LOVE decorations just so they can sit around on the wall achieving nothing?

This new America, this Other America, has built a fleet of electric vehicles that are assigned to communities based on need. Need to go visit family? Just ping the system and one is driven by AI to your home. It takes you anywhere you need to go, even if you need it all day—even if you need it for a vacation! And once you’re done, it rolls away and continues its journey, occasionally rolling into a station for maintenance.

Public transport makes a lot of that moot anyway, and the way communities are arranged means you don’t gotta go far to get what you need. But the cars are there if they’re needed, rotating in and out of people’s lives.

Car lots. You know ’em, you love ’em. They’re filled on the chance of need. The chance of a sale. Think about that a bit more: how much stuff is sitting in shops that is produced just to end up in a landfill? They’re still dumping unused electronics into pits. Excess computers, excess cars, excess stuff! Think about that! Holy hell, America, what if we only made what we needed? Isn’t that a crazy thought!

If your kid’s hungry, you don’t make them a hundred different

sandwiches and throw ninety-nine of them away. Families don't operate on chance; they operate on need. Imagine if our big American family did the same?

*Now imagine that America exists!
I've been there!*

"It was an amazing sight, when I first saw it. A lot of towns that run the valleys of California are kinda, I dunno, haphazardly spread out. Like butter on bread, there's almost a kind of randomness to that type of organization." To demonstrate, Albert picked up the buttered toast he had on his little side table. "Concentrated in points, thinned out around the edges." He took a bite. "That ain't the way of things in Other America. Everything is organized."

"Organized how?" I flipped a page on my notebook to show I was still engaged, but I honestly couldn't believe what I was hearing. Was he *really* saying all these crazy stories in his crazy little publication were true?

I felt cheated. Tricked.

"Other America operates on a simple principle: take one, give one." He put down his toast, wiped his hand on the front of his overalls, and held up a finger. "If they knock down a tree, they plant another one. If they build a neighborhood, they build a park with the same footprint. Every neighborhood has access to every service they'd need. No more planning out a drive to the store across town. Everything is walkable! And it's a place where you delight in walking, playing, raising your kids. Everyone knows everyone. Everyone gets what they need, when they need it. That culture of excess—" He clapped his hands. "—doesn't exist. And holy hell, it's amazing how few worries you have when you don't have what you don't need."

I decided to push back a little. "But surely there will always be people who want *more*. We live in the desert, but what if I wanted to live by the beach? Up in the mountains? What if I want to own land?"

He waved my question away. "You can build communities almost anywhere, but those days of mansions lining the coast are done. The days of clearing out a forest for a mountain resort or a golf course? Done. 'Communities are planned according to the land.' That's what they tell me. You want a mountain community? Get a consensus on board, pitch the idea, and as long as the

domiciles are integrated with the landscape, it'll get built."

Vol. 4, No. 223 - August 12, 2022

Visited the college today. It's not so different, but it's just one of many in the community now. Everything is linked together digitally. None of this bullshit with certain universities specializing in certain things with certain universities having privilege over others. Holy hell, America: information is information. There aren't different brands of the truth as we know it! There ain't no store brand education here.

Programs are established just as they are today, but you might take Intro to English Composition with a professor in your hometown, while you take your sophomore classes with one professor in Texas and another in Maryland. Your grad school lessons might be provided by a group in Wyoming, while you submit your thesis to your committee in Hawaii. All without ever having left California.

Education is decentralized and the institution is better for it. The quality of education is better for it. And you don't have to pay for no silly-ass parking pass, dorm rent, or out-of-state tuition. Just show up and grow up!

I said, "A lot of these issues read like an indictment on...well, *all* of the social, political, and educational systems here in America. There's probably a thousand columns on infrastructure alone."

"Chance!" Albert balked suddenly. "There's that culture of chance again. We built a web of roads throughout this country—throughout this world!—on the *chance* that people in cars that can barely fit five people will utilize them. We built our communities around them and we also destroyed communities to build them. We built roads like we couldn't imagine a future walking ten feet to get anywhere. And look at the drive to LA. Look at the drive to San Francisco. We're not building smarter, we're just building more of the same! Amplifying and magnifying the mistakes of urban planners long dead who knelt at the altar of chance! Think of all we've paved and buried and destroyed in the name of chance."

"Right, but—"

"A man can get sent to the hospital for an enlarged artery. In LA, they just call it Interstate Four-oh-five!"

Vol. 2, No. 3 - January 3, 2020

We thought we were the bee's knees when we decided to start

reducing single-use plastics, but Other America doesn't particularly like dabbling in anything single-use if it can be helped. Electronic devices aren't sent out into the world to be used and dropped into a closet. They're designed—down to their base components—to fulfill their purpose efficiently and for as long as possible before they're broken down and recycled. Seriously, individual screws have recycling plans available. People still have phones, but replacing them annually isn't a thing. Take it in, get it upgraded, take it home. Any removed parts are recycled. Jamal has had the same phone for ten years and the screen jumps around faster than mine!

Planned obsolescence is a dirty, dirty word that'll get you kicked out of public spaces—

"I feel like I missed something," I lamented.

Albert paused his rant and leaned forward. "Didn't read that one?" he asked and angled a thumb over his shoulder. "I got all kinds of issues."

"I'm very much aware. No, look—" I spread some of the papers in front of me. "—I reached out to you because I thought the PCN was some kind of story."

"It is!"

"A fictional story."

"Oh...well, it's definitely not that."

"You've been hanging around outside your house, with your lawn chair and your little picnic table, handing out a handwritten newsletter to anyone who happens by and sending copies to the college every day for the last five years—"

"No, not every day. C'mon," Albert said. "Post office is closed on Sundays. I have to send out two on Mondays."

"Okay—"

"Holidays...Labor Day...I get a backlog going sometimes."

"You cannot sit here and tell me that this place you've been writing about all this time actually exists. You cannot time travel by walking down Seventeenth Street."

Albert shrugged in a well-meaning way, as if he hadn't heard half of what I'd said. "Don't mean to dull your point, but I ain't actually time traveling... Y'know, it's still the same year and the same time over there. At best, I'm traipsing 'tween dimensions... timelines? Is it time traveling if you're just moving sideways like that?"

“Albert...Mr. Jenkins...” I pressed my notepad to my chin while I arranged the most diplomatic responses available to me. “Look at this whole thing from my perspective, okay? From the perspective of any of your readers. It’s quite a mountain for us to climb as far as suspension of disbelief: that a man out of Palmdale is communing regularly with an alternate timeline of America during his morning walks. That you’re visiting a perfect society, a utopia, and make it back in time for lunch.”

Albert said, “That’s not true, it’s not a perfect society. Punk rock isn’t really as interesting as it is here. And the blues...well, they kinda have to fake it. Even then, it doesn’t sound like they’re sad. Sounds like they’re dredging pains from having left their shoes out in the rain or something. Doesn’t quite reach the soul, y’know? And anyway, utopia doesn’t necessarily mean perfect or else they’d never change or improve or look upon anything they do with a critical eye. Perfection means standing in place.”

“I don’t think you’re hearing me. We’re sparring over the fine details, but I’m talking about the whole...whole...” I frantically traced a big rectangular pattern with my hands. “...the whole painting.”

Vol. 4, No. 154 - June 4, 2022

I’ve eaten meat a number of times in Other Palmdale, but I was just told today that meat, animal protein, isn’t really a thing anymore. It’s all synthetic, textured, prepared in almost every way we eat it today. Hell, Jamal put peppered steaks on the grill. Three quarters of a century on this earth as a proud carnivore, but I couldn’t tell the difference between the real thing and this fake meat if you had put a gun to my head. Even though these guys haven’t seen a gun since World War II, apparently.

I guess that’s the next big step, right? If we ever plan on leaving this planet for worlds and realms unknown, we can’t plan on chickens and cows grazing the surface of Mars or tuna swimming up the streams of Triton. We have to be able to make what we need. Relying on other creatures for sustenance is another game of chance. Relying on weather and crop yields is another game of chance.

We got planned obsolescence out of our vocabulary, but the next challenge is getting chance out of our dictionary, too. We eliminate chance, then one day, reaching the stars will seem quaint.

"I understand," Albert said. "I understood where you were coming from the moment you called. It's no mystery to me that every issue that I put out there and hand out on the street sounds like the ramblings of a madman. Hell, even madmen probably have working coffee machines."

Seeing Albert's sudden moment of self-awareness brought me back down to earth. Maybe there was still an eco-activism slant I could tap into for this article. "Maybe if you could just bring something back next time."

"Can't bring nothing back. Dunno why, but I tried my damndest. Everything in my hands just fades away along with the rest of Other Palmdale. Jamal even offered me some of his lunch one day and I came back hungrier than when I left. Like it had been pulled out of my stomach! Writing comes back, of course, but I can't make heads or tails of it all."

"I still don't understand why you think you can just walk down the street and see such a place."

"That's just the thing, my friend. That's the sad truth. You really do only gotta walk down the street and look around. Look at how things could be. I have no rightly idea of how I keep ending up there, no idea how nobody else does. They build a lot of crazy shit here in Palmdale, so maybe I'm catching a rogue wave or something coming off those factories and bases. But I'm not time-traveling anywhere. Today is July the Second, Two Thousand and Twenty-Three here in Palmdale, California. In Other America, it's the same day, same year, same time.

"The *same* time. The only difference is the choices they made along the way."

"It cannot be that easy."

"We *chose* to go to the moon—and we did, that very same decade. The only reason this America and Other America are in two different places is choice. Every day, we *choose* not to be that place. Every day, these two Americas drift further away. Now my method ain't perfect. God knows nothing I've ever done has even brushed past perfect, but this newsletter is all I got. It's all I got to keep these two places from drifting apart. I can't do nothing else in my old age...so I do what I can. And this newsletter is what I can do."

For the first time during our interview, sadness crept into Albert's expression and he was slower to speak or even make eye contact. "Y'know my...ah, shit...my... *wife's* still alive over there.

Don't know if we're together across time, but I've seen her around Other Palmdale. Just glimpses. Dark gray hair still bundled up into a bun. She's alive there, friend. She's alive there and she ain't here.

"So what is it about that place that kept her going? Maybe they have treatments for the cancer that killed her. Maybe they..." He smiled, despite the memory being pulled back into the room with him. "That's why I'm doing this, friend. That's why I've made myself a spectacle in this neighborhood. If I can move our two timelines closer by even an *inch*—" He brought his fist down on the armrest of his chair, but it barely made a sound. "—even one inch, goddammit, that'll be worth any amount of time I spend writing this newsletter!"

Albert eased back into his chair and peered through the sliding glass door that faced his backyard. I opted not to bother him, instead taking some sparse notes while he dreamed.

"What newspaper?" he finally asked. "What newspaper did you say you were from?"

"Oh, I print my column in a few places."

"I remember you saying that, but your friend mentioned a newspaper when we talked. He didn't specify."

"The, uh...the *Antelope Valley Enterprise*."

Albert nodded in a look that trended towards horror for a moment. Then he laughed suddenly. A hearty laugh that brought a tear to his eye. "I guess that fits. After all these years, me and the *Enterprise* finally see eye-to-eye. We're both telling folks the sun's out when the weather calls for rain."

* * *

On the way out of town, I decided to backtrack to 17th Street to try and see what Albert saw on his morning walks. I saw the city thin out and disappear into the desert. At the end, I stood there, my shoes grinding impatient divots into the dust. As a reporter, I couldn't say that I could see anything that Albert had been writing about for five years, but as a fellow member of the human race I could see what must have planted those images into his mind. Nearly empty desert for miles and miles, people living on the fringes of that expanse, people living according to chance.

But—as I turned to walk back to my car, I felt a cool breeze mercifully pass around me. In place of my car, there was a man fiddling with a control panel next to...well, what appeared to be a massive expanse of glistening solar panels. None of which were

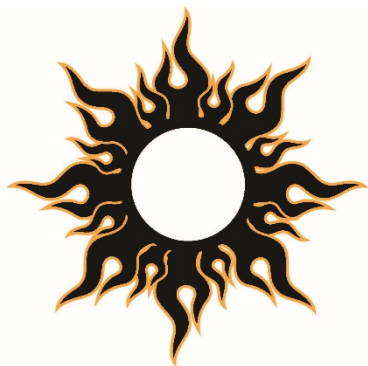
there a few minutes before. In the distance, I could see the glint of an ivory city.

The man, finally noticing my presence, looked up from his work and nodded amiably, seemingly unsurprised by my sudden appearance.

“You a friend of Albert’s?” the man asked.

Somewhere in the midst of my shock, I managed to nod.

“Figured,” the man said with a warm smile. “Did he get you to read his newsletter? That guy has a ton of issues.”



ABOUT THE AUTHORS

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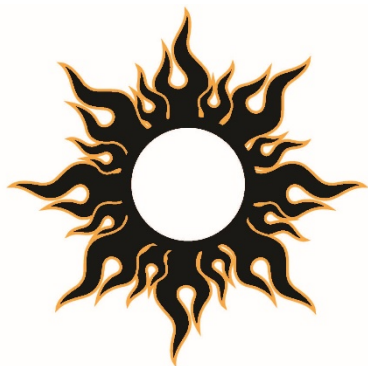
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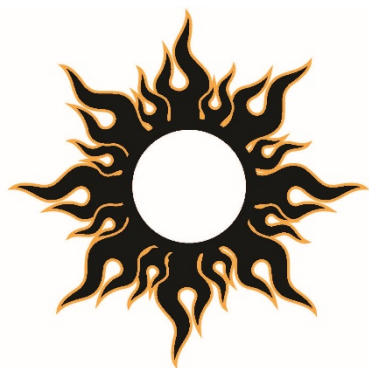
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